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GEELONG NATURALIST

NATIONAL MUSEUM
4 JUN 1965
OF VICTORIA

JOURNAL OF THE GEELONG FIELD NATURALISTS CLUB

SOUTHERN STONE - PLOVER

HON. EDITOR: TREVOR PESCOTT

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FOLDER — FIX TO FIRST PAGE

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

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COVER PHOTOGRAPH

Close up of Southern Stone-Plover.

Photograph by D. MacKenzie.

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EDITORIAL

My new, and treasured, Oxford defines the word "concatenate" as "to link together". So concatenation is a word which describes the most important feature of Clubs such as ours - this linking together of members, by a mutual interest, forms the basis of the Club.

But it goes further than this - it implies the assistance and co-operation members show towards each other in the furtherment of their knowledge and understanding of natural history. It implies, too, a co-operation with the office-bearers of the Club, those members who give their time so freely to keep the Club ticking smoothly.

At this time of the Club year when our Treasurer in particular is deeply involved in Club activities, forethought and assistance from all members can save so much time and make his task a little lighter. He knows that you will assist by forwarding your subscription to the Club as soon as possible, for the result of early receipts on the Club's records is obvious. But little things - changes of address, correct addresses, correctly spelt names - these are the things which if erroneous early cause problems throughout the year.

Similarly, to ensure the Journal reaches the mail early, these small details should be as accurate as possible, to avoid returned issues with the stamp "Unknown as this address" imprinted across the envelope. Should you realise that you are not receiving your Journal, when other members have theirs, please contact the Secretary or the Editor as soon as possible so the fault can be remedied.

Whilst on the subject of "Geelong Naturalist", articles both small and large are needed to keep it alive. Photographs, too, are urgently needed and these should be glossy prints of the following sizes - $3\frac{1}{4}$ x $5\frac{3}{4}$ inches or $5\frac{3}{4}$ x 7 inches for half page or full page reproductions respectively. It is advantageous to have these submitted in association with articles, but separate photographs are also needed on any subject of natural history interest, so that they may be used as need arises.

Most photographers are now using color transparencies, and it is

proposed to make available a "black-and-white" service, where transparencies will be rephotographed onto this type of negative. Further details are available from the Editor or your Committee members.

TREVOR PESCOTT
Hon. Editor.

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RETIRING PRESIDENT'S REPORT

As each of the preceding years has drawn towards April and a time for revue has come about, our Secretary has presented excellent reports of the year's activity.

Now that a change of Presidency has taken place, I feel it is time for an additional report to be brought to you, and for this reason this President's report has been brought forward. If we pause for a moment to look back, not only over the last year, but rather back over five years, we can see in this time the Geelong Field Naturalists Club has been brought into being, and how it has grown to its present status of over two hundred individual members.

I have mentioned five years, rather than the four in which we have been operating, for it was in 1960 that the Club was first considered, and at the end of that year, and early the next, the foundation of the Club was laid. The first step was taken on December 15th, 1960, when a note was published in the "Geelong Advertiser" asking that such a Club be formed; for years prior to this we had discussed the idea casually, but we had not gone ahead with plans.

Early in 1961, four friends joined my wife and me at our flat, and we began laying plans for the future; we realised that the potential of such a club had not been tapped in Geelong for several decades - and how little we were aware of the magnitude of the interest in natural history in Geelong.

We hoped our first meeting would draw twenty or thirty - could it possibly reach fifty? - but we were pleasantly surprised when about one hundred were present.

These four who were at the initial planning meetings are all well known to you - Mrs. Daisy Wood, Miss Voi Boardman, Mr. Gerald Farey and Mr. Ralph Boddy.

At the first meeting of the six of us, we invited others to join

us, and it was from these get-togethers the first Committee was formed.

The first official meeting of the Geelong Field Naturalists Club was held in April of 1961, and from then on the Club has flourished. The standard of speakers has never varied, the excursions have improved since that first at Cuthbertsons, and the interest has never lessened by those who have become a part of the Club, and have let the Club become a small part of themselves.

For four years of extreme pleasure, of satisfaction, and of gratitude for your confidence in my leadership, I sincerely thank all Club members, for without your support, I could not have felt or become so much a part of the Club.

TREVOR PESCOTT
Immediate Past President

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OLD GEELONG NATURALISTS WANTED

The following copies of old Geelong Naturalists are urgently required by Mr. J. Ros Garnet to complete a set. They are -

2nd Series Vol.6 No. 2 (Serial No. 46)
2nd Series Vol.7 Nos.1, 2 and 3 (Serial Nos. 49, 50 and 51)

These were all published about fifty or sixty years ago.
Mr. Garnet is willing to pay for them, the current price being about 3/6d. each.

If any other Club member could assist, Mr. Garnet can be contacted at 23 Camdon Street, Pascoe Vale, W.8.

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"GATHERED FLOWERS"
(or "We Die Together")

The following is a chapter from the book "The Language of Flowers" (or "Floral Emblems of Thoughts, Feelings, and Sentiments") - written by Robert Tyas, M.A., Ll.D., F.R.B.S. The book was published in the 1880s, but the date of publication is not shown in the book.

"It is well known how soon a mass of flowers, or fruit, or vegetables, decomposes the air, and renders it unfit for respiration, producing sickness and death.

"This fact has suggested to a German writer, Freiligrath, a touching sketch, which he calls "The Revenge of the Flowers".

"Returning from a botanical excursion, two young girls enter their home, close the windows, lie down and fall asleep. At their feet in a basket is seen the flowers which they have collected. How indiscreet! Where is their mother? Who will warn them of the danger which surrounds them? Already the air is being decomposed, the atmosphere of the small apartment is heavy and unfit to breathe and the youthful maidens weighed down by it writhe about unconsciously on their couch.

"Suddenly from amid the basket of flowers, rise up the spirits of narcissus and the tuberose! They appear as two light nymphs dancing and whirling about, meanwhile chanting ominous words: 'Young maidens! young maidens! why have you deprived us of life? Nature gives us but a day, and you have shortened it! Oh! how sweet was the dew! how radiant the sun! and yet we must die! but we will be avenged!

"Thus chanting, the two nymphs, continually whirling about and bewailing their fate, draw near the young maidens' couch, and breathe over their faces their poisonous exhalations.

"Poor children! Mark their livid cheeks! Their pale lips! Their arms closely interwoven! Alas! Their heart has ceased to beat. They no longer breathe the breath of life; they are dead together.

"The flowers are avenged!"

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NATIVE PLANTS FOR VARIETY

By E. G. Errey

While growers of our Australian trees and shrubs are possibly interested chiefly in the decorative value of their flowers, it should be realised that they have other attributes that ensure their popularity with all who know them well.

With many genera of our plants, variety is an outstanding characteristic, variety not only of form and colour of blossom, but also in type and texture of foliage, and in shape and size of the plants themselves.

Our wattles range from low-growing forms to tall forest trees. Their foliage may be either the soft, feathery, true leaves familiar in the silver and the black wattles, or phyllodes, the flattened leaf stalks disguised as leaves and found on our national emblem, the golden wattle, as well as many other species.

Not content with this, the acacias sometimes dispense with both these forms. In some, spikes or thorns serve as foliage, as in Acacia aculeatissima, or Prostrate Wattle, found in the Steiglitz area, while the Winged Wattle (A. alata), from Western Australia, develops wide green flanges along the stems to provide the chlorophyll requirements of this delightful shrub.

Colour in the foliage ranges through many shades of green, and includes also the silvery blues of the Cootamundra, (A. baileyana) and the Queensland Silver Wattle, (A. podalyrifolia), the former with true leaves, the latter with phyllodes.

Most genera produce flowers in a much wider range of colour than the acacias, which have yellows only from pale cream to deep orange. In the melaleucas, for instance, we find white, cream, yellow, pink, red, mauve and purple, with the flower types varying from large bottle-brushes as on Melaleuca hypericifolia, to small pompons, and to the delicate incurving fingers of the mauve claw-flower, (Melaleuca pulchella), a lovely West Australian plant growing only a foot or two high.

Even greater variation is found among our grevilleas. Ranging in size from low rockery plants to forest trees such as the silky oak (Grevillea robusta) of the Queensland jungles, this genus shows differences in every aspect.

Foliage may be thin pointed leaves as in the rosemary grevillea,

prickly ones in the style of English holly in species found at Anakie and in the Grampians, or soft fronds like those of Grevillea banksi forsteri from Queensland, to quote only a few of the many kinds.

The rosemary grevillea mentioned (G. rosmarinifolia) is probably the most common species in cultivation; in fact it was for long almost the only one, but other better flowering plants are now winning popularity and a number of lovely hybrid grevilleas is available.

These plants also exhibit many differences in the flowers themselves, as regards both shape and colour. Species found in the Brisbane Ranges north-west of Geelong include a form of the rosemary-leafed grevillea, with small clusters of red flowers, the golden grevillea, with larger single flowers, and a semi-prostrate holly-leafed plant with red and green tooth-brush flowers.

In blossom colour this genus of versatile plants offers not only red, pink, white, cream, brown, green, yellow, grey and mauve, but for good measure combinations of red and green, grey and white, and yellow and red are available. Indeed, so great are the variations between members of the grevillea and allied genera that they have been given the family name of Proteaceae, after the mythical Greek God Proteus, who had the power to change his form as he wished.

Banksias, hakeas and conebushes are three other branches of this same family to be found locally. The beautiful proteas of South Africa are also related.

Very conspicuous in our bushlands in springtime are the smaller shrubs often classified more or less vaguely as "egg and bacon", but in reality including species from several pod-bearing genera. These plants with pea-shaped flowers are often difficult to separate into their correct groupings.

Others of the pod-bearers are easier to distinguish. For example, the running postman (Kennedy prostrata) is an easily recognized favourite of many bush-lovers, child and adult alike. This plant, sometimes called the scarlet runner, makes quite a good ground cover plant in the garden, forming a dense mat where its water supply is more regular than in its natural habitat. Propagation from seed is simple, and one ripe pod will provide ample seed.

Another pod-bearer that makes an attractive green carpet in many places in the Anakie area is the matted bush pea (Pultenea pedunculata). It has bright yellow flowers, typical of the "egg and bacon" group.

In contrast to these trailers, two medium-sized shrubs of this district grow five to eight feet high. They are the large-leaf bush pea (Pultenea daphnoides) which decorates the dust jacket of Jean Galbraith's book "Wildflowers of Victoria", and the narrow-leaf bush pea, (Pultenea angustifolia), a species growing in profusion opposite the "Eumerella" Scout Camp on the Anglesea Road, and lighting up the bush with its deep gold in early spring. All four of these plants are suitable garden subjects.

Some folk complain of the sameness of the Australian bush, with its everlasting display of "gum" trees. Closer observers realise there is wide variety even in the barks of our eucalypts, with the smooth bark of the gums, the loose fibres of the stringy barks, the hard furrowed trunks of the iron-barks and the less easily recognised wrappings of the boxes and peppermints.

Many lemon-scented gums are grown in parks and gardens for the beauty of their smooth pinkish trunks alone, while the ghost-gum of Central Australia was immortalized by the artistry of Albert Namatjira.

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ACKNOWLEDGMENT

The Editor wishes to acknowledge the assistance of Mr. J. H. Willis of the National Herbarium, for his identification of Acacia Rigens, a photograph of which appears on Page 9 of this issue.

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A DAY AT WYPERFELD

By Miss L. Banfield

Birds were still nesting, wildflowers in bloom at Wyperfeld during our visit in the second week of December.

Golden pennants (Loudonia Behrii) were making the gayest display; Ham and Egg daisies (Myriocephalus Stuartii), creamy honey-myrtle, Moonah, Austral Bugle and guinea flower were also in flower. Honeyeaters were busy among the blossoms of Red and Yellow Mallee.

Driving over dry, grassy lake beds, through forests of Black Box and Red Gum, or walking among the Mallee thickets and up and down sandhills into "the secret, brooding bush", we saw the wildlife of north-west Victoria in its natural habitat.

Though their flowering was over for the season, it was interesting to note among the healthy shrubs on the sandhills some Grampians' favorites - fringe myrtle (Calythrix tetragona), tea-tree, grevilleas, hakea and clematis - and also the weeping pittosporum, desert banksia, sheoak and wattles.

More than 400 species of flowering plants occur in the Park which is Victoria's largest national park covering 218 square miles. The wide variety of plants is remarkable in an area of low rainfall averaging nine to eleven inches.

The late A.H. Mattingly and one or two naturalists visited the northern and central areas of the park in 1907 and were much impressed by the beauty and variety of the flora and fauna. Two years later a reserve of 9,600 acres was created, and in 1921 this was extended to almost 140,000 acres and permanently reserved.

Occasionally the waters of the Wimmera River overflow Lake Hindmarsh into Outlet Creek and eventually reach the lakes and lagoons of Wyperfeld bringing about the germination of Red Gum and Black Box trees.

In two or three places bores have been put down, small windmills erected and pools established for birds and other wildlife. Two hundred species of birds have been recorded there.

Galahs, crested pigeons, white-winged choughs, willy wagtails and emus were our first birds after entering the park gate. On the open grass flat of the tourist area, photographs were obtained at

EMUS AT WYPERFELD

NEALIE (ACACIA RIGENS)

PHOTOS BY TREVOR PESCOTT

close quarters of kangaroos and emus including a proud and stately bird slowly leading half-a-dozen emu chicks.

Wedge-tailed and whistling eagles were wheeling about in the sky. As we got further into the Park, we were delighted to see rainbow birds, white-browed wood swallows, black-winged currawong, mulga, ring-neck, red-backed and regent parrots, eastern rosella and Major Mitchell cockatoos. We thought ourselves extremely lucky to see a black-backed wren, a Lowan, and a chestnut quail-thrush running across a track and to distinguish a podargus on its nest with two young.

Striated and yellow-tailed pardalotes and buff-tailed thornbills were calling. It certainly was a very special day!

The Park Ranger, Mr. A. Campbell, who was making a routine tour of inspection took us to Eastern Hill where sixteen Ararat High School boys, supervised by two members of the school staff, were building a 15-foot fire watch tower. They had nearly completed it and Mr. Campbell was full of praise for the party and their work.

"They came to do a job and they have done an excellent one", he said.

The boys camped on the site in tents for a week. All their cooking was done in a caravan as no fires could be lit outside. After the day's work small parties were to be seen, field glasses in hand, making short excursions in the bush.

Fires, rabbits and the negligence of man are the chief menaces to Wyperfeld which was established for the protection of the Lowan and to preserve the unique flora and fauna of far north-west Victoria. In 1946 a fire destroyed some 15,000 acres and in 1959 another 57,000 acres were razed by a fierce fire which swept into Wyperfeld from the surrounding Mallee land.

Fire-places, rain water and toilet facilities are provided in the "tourist" area where campers and picnickers are permitted to stay. A garage and workshop for a resident ranger have recently been erected. Guns, dogs and cats are prohibited and may not be brought into Wyperfeld Park under any circumstances.

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IDENTIFICATION OF GUM TREES

By L. W. Elms

Australians who travel overseas frequently become homesick for the sight of "gum-trees". This is understandable when one realises that they are more widely distributed throughout Australia than any other of our native trees, yet with the exception of four species found in Malaya, they are confined solely to Australia.

In more recent times they have been introduced to Italy, California, and a few other overseas places.

There are nearly four hundred kinds of gum trees, and the wattles number more than six hundred kinds, being second as a national tree only because they are not so widely distributed.

Actually all the gum trees are "Eucalypts", this term meaning "well covered", and referring to the peculiar lid which covers the flower bud. They were called "gum trees" many years ago because of the resinous gum which frequently exudes from the tree.

Captain Cook, on landing in 1770 with his botanist, Sir Joseph Banks, was so amazed in the variety of the trees that he named the spot Botony Bay, and later on, when the "Endeavour" headed back to England, more than 300 kinds of different plants had been collected.

As it is virtually impossible to identify on sight each of the four hundred varieties, a system was developed by Baron von Mueller of classifying these into six groups which are easily recognised by their different types of bark.

Those who are familiar with this classification reserve the term "gum tree" for one particular group only, for the six groups are as follows:

1. GUM Group.
   The trunk has smooth deciduous bark, which is shed in ribbons periodically. The limbs are smooth.
   Examples - blue gum, red gum, sugar gum, and manna gum.

2. STRINGYBARK Group.
   The trunk and branches are covered with thick, loose, fibrous bark, with the fibres laid longitudinally.
   Examples - messmate, yellow stringybark and red mountain ash, which are some of the tallest trees in the world.

3. BOX Group.
These have a soft, yet compact matted fibrous bark covering the trunk and sometimes the limbs also.
Examples - grey box, yellow box (Yellow inside the bark), and red box (Red timber) - all very hard and durable timbers.

4. PEPPERMINT Group.
These have a greyish, soft and compact bark also, but more fibrous than the box trees, and the leaves have a very fragrant eucalyptus odour.
Examples - narrow leaf peppermint, and white mountain ash.

5. IRONBARK Group.
These have a hard, corrugated bark, grey to black in color. The bark is persistent, and does not get shed, which results in old trees having an extremely thick bark.
Examples - red ironbark and silvertop.

6. WRINKLED-BARK Group.
These have a peculiar tessellated or scaly bark all over the tree, and they sometimes exude red gum.
Examples - Bloodwood, mahogany and blackbutt.

These simple classifications of the genus Eucalyptus form a quick basis of identification, which it is interesting to apply as one travels about the bushlands.

More detailed classification can be done, when your interest has been aroused, by a closer study of the leaves, fruit, and the inflorescence, but space will not permit of these details being given in this article.

An excellent booklet dealing with this matter is "Know Your Own Trees" by R. T. Patton.

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NEW FOREST RESERVES
By J. R. Wheeler

Two New Reserves in the Enfield Forest

The Ballarat Field Naturalists Club is to be congratulated on its successful representation to the Forests Commission for the setting aside of sections of the Enfield Forest (south of Ballarat) for the conservation of native Flora and Fauna.

During 1964, several sections of the Enfield Forest were inspected by officers of the Forests Commission and Fisheries and Wildlife Department, together with members of the Ballarat Field Naturalists Club. Two such areas have now been approved by the Forests Commission as Flora and Fauna Reserves:

(a) Mt. Misery Garden - 410 acres.
(b) Berringa Flora and Fauna Reserve - 490 acres.

A committee of management with naturalist representation is yet to be appointed.

Both areas are rich in wildflowers and particularly orchids; several species of native fauna such as Sugar Gliders, Doormouse Possum, Phascogales, and Kangaroos are to be found there.

YOU YANGS now a Forest Park

The Forests Commission have announced that the You Yangs Scenic Reserve will in future be known as the You Yangs Forest Park. This comes about by the successful representation made by the Bird Observers Club and Royal Australasian Ornithologists Union that an excellent bird habitat known as 'East Flat', an area of approximately 150 to 200 acres be annexed to the Scenic Reserve (960 acres). As this increases the total area to over 1,000 acres, such areas under control of the Forests Commission are gazetted as Forest Parks.

An area south east of the newly annexed section and bounded by a dividing road, has been exempted from plantation establishment and the cutting of green timber of native species for a further period of three years as from 1.1.65.

An area north of Big Rock has been set aside as a Special Purpose Reserve for bird habitat for a further period of five years as from 1.1.65.

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One of the most comprehensive reports yet to be presented to the National Parks Authority was one submitted with the view to obtaining a National Park in the Lower Glenelg area; because of the magnitude and thoroughness of the report, the proposal could gain consideration far more quickly than others in which field work is left to the Authority. This field work included botanical, geological and ornithological surveys, as well as a summary of topographical features to describe the area fully.

The following are excerpts from the report which was prepared by Mr. F. Davies and other naturalists notably Messrs. Learmonth and C. Beauglehole. It is with permission of Mr. Davies that the following are reproduced here.

The Portland Field Naturalist Club is seeking the establishment of a National Park on the Lower Glenelg River. The objective of the National Park would be (1) to conserve in perpetuity a representative sample of the unique flora and fauna indigenous to south west Victoria and (2) to provide recreation and leisure for the rapidly expanding population of the region.

Some time ago the Club learned that the Forests Commission had completed plans and survey for pine afforestation to within three chains of the north bank, from Jones lookout to the South Australian border, a distance of almost 20 miles in a straight line.

Realising this would endanger all the natural features in the Lower Glenelg district, a public meeting was called on April 11th, 1964; the following motion was carried unanimously:

"That this meeting considers that a considerable area on each bank of the Glenelg River, from Jones Cliff to the South Australian border, plus the fern gullies of the Moleside Creek and the feeder swamps should be preserved in their natural state as a National Park. It requests the Government to take the necessary requisite action to prevent the Forests Commission from planting pines thereon, and other Departments from effecting swamp drainage of the feeder creeks."

The area concerned includes many excellent natural features, and following a technical description of the proposed area, which defined the limits of the proposal by river, road or other physical feature, or by surveyed lines, a description of various features followed.

The area is accessible on the south by the Portland Nelson Road, and from the north from the Princes Highway near Winnap by bitumen road south for about six miles.

The topography of the area is varied. The eastern sector is bounded on the north and south by fairly high land which forms a wide valley, and on the west by a series of ridges. This valley is the watershed of the Moleside system which comprise Gallas, Moleside, Learmonth, and Little Moleside Creeks, together with several smaller branches. These creeks cut through the western ridges in a series of deep narrow gorges. The whole of this eastern sector is a patchwork of swampy heathland, almost barren acid sand dunes, deep grey sandy ridges with stunted type eucalypts, a few grey sandy ridges carrying some hardwood forest, gum flats, deep gullies and a few areas carrying reasonable hardwood forest. It is the very patchwork nature of this area which gives the tremendous wealth and variety of flora and fauna and makes it such a valuable area for conservation.

The western sector of the proposed Park includes part of the lower reaches of the Glenelg. The buffer zone on either side comprises mostly hardwood forest of indifferent quality and some swampy areas. In this sector the river has cut a gorge in tertiary limestone up to 150 feet deep creating a feature that is unique in Australia. This gorge also has a rich and varied flora and fauna.

For tourists, lookout points are most important, and several excellent sites could be developed for this purpose.

Other notable features in the eastern sector are the ferns, including the spectacular tree ferns which grow in the narrow gorges, the tremendous variety of mosses, 76 in all, which grow in this sector, the flowering acacias, soft bush peas and the blue tinsel lily. Also the unusual waterhole known as the inkpot. This is situated near Jones Ridge on the northern boundary right at the roadside. It is about $\frac{3}{4}$ acre in extent and has never been known to be dry. The name is derived from the colour of the water which is almost black.

If any feature of the Lower Glenelg is worthy of mention it is the caves. They are very numerous and have both aesthetic and scientific value. Only one cave to date "Princess Margaret Rose" has been partially developed for tourists. When land is cleared caves are considered a hazard and are usually filled in and when this happens any scientific secrets they may hold are lost forever.

The bone deposits in three of the caves in the proposed Park

area are being worked and are providing valuable information on the fauna of the area, both past and present. In the fern cave on the Moleside 1600 individual animals have been recovered representing 35 species. In the Amphitheatre cave 10,102 individual animals were recovered representing 26 species.

McEachern's cave has proved the most interesting. Here almost 2,000 individuals were recovered including 40 species. Important finds in this cave were: Giant Kangaroo, Giant Macropod, Small Macropod and one of the Diprotodon family. All these have been extinct in Australia since Pleistocene times, and two others, the Tasmanian Tiger and the Tasmanian Devil have been extinct on the mainland since the advent of European man. Were it not for such fossil caves, we would never have known of their existence here.

A description of the various plant associations occurring in the area is made with emphasis on those which are highly localised or form pockets which hold plants rare in other parts of the State. These include about 700 flowering plants, 86 mosses, 53 lichens and liverworts, and nearly 300 fungi (the fungi were found in the period of June to April - no doubt many more are still to be found here). Mammals too are plentiful as are birds - a list of 37 animals and 161 birds is appended.

Further considerations for a National Park on the Lower Glenelg.

As other countries have found, there are many and valid social reasons for establishing National Parks and insofar as they apply to the southwest region of Victoria, we present them for your consideration as follows:-

1. Future development of the region.

Planning the development of a region falls on two main categories:-

1. Planning for business and industrial development.
2. Planning for leisure.

The establishment of a deep sea port at Portland, almost on the main overseas and interstate shipping lane, assures the rapid development of a district extending some 100 miles both east and west of Portland, and 200 to 300 miles north. Portland as the hub of this area can be expected to expand to a city of about half a million people within the next 100 years. Behind this development will be rich agricultural and grazing industries, with a tremendous potential for expanding existing horticultural, vegetable, fishing, forestry and tourist industries. The port is already an important bulk fuel

distributing centre, and the establishment of an oil refinery can be expected. Secondary industries will naturally follow the development of the port and the region.

The tremendous pace at which our business and industrial industries are being conducted is demanding a fuller and more effective planning of our leisure. Planning for leisure means the provision of facilities where people may enjoy the Arts, the provision of well equipped playing fields for all kinds of sport, the provision of parks and gardens within the cities, the development of natural attractions so they are easily accessible and the provision of substantial areas away from cities where people can spend a quiet period of relaxation. National Parks are the ideal medium for this.

2. Establishment costs and land use.

Once the need for National Parks to provide culture and recreation for a growing society in the future is recognised, it is obviously most economical to set aside such lands where they still belong to the Crown. The converse applied in U.S.A. where during the latter half of last century, all land was sold to private enterprise, even to the seashore. With the growth of population and that nations development, all land for Parks, reserves, and playing fields had to be repurchased by Government and semi-Government bodies at enormous cost to the taxpayer.

Fortunately, a substantial area of land in south west Victoria is still held by Government bodies, and this land could provide the areas in question at little cost to the taxpayer. In total such land amounts to about one and a half million acres, and the rate at which it is being cleared in recent years makes it imperative that reserves needed for future use should be set aside now. Our proposal for a National Park on the Lower Glenelg seeks only a very small percentage of available land.

The Club supports the scheme of pine afforestation, because it will provide valuable products for our expanding economy, but we also suggest that it must be tempered with other needs of the people. There is surely enough land for forests, agriculture, tourism, nature conservation and biological science. It is wise that it be fairly and equitably distributed. The needs of pine afforestation are confined mainly to soil types, and only a small

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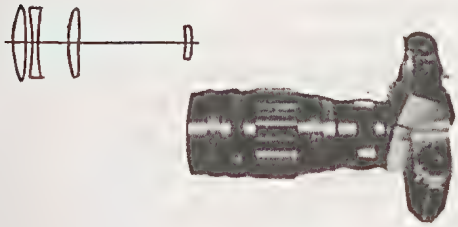

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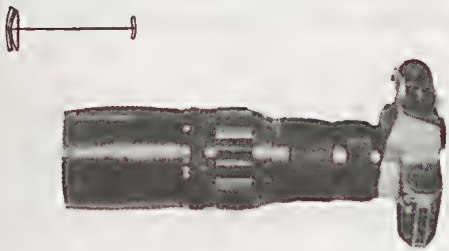

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portion of the area we are seeking to preserve would be suitable for pines. On the other hand the needs of National Parks are much more complex. The topography, geological features, flora and wild life are all important. It is these features that combine to make the Lower Glenelg an excellent locality for a National Park.

3. Tourism.

Tourism does produce revenue. The proposed Park is well situated in this respect; it would draw tourists from South Australia as well as Victoria. Already numerous outings in the region have been arranged for visiting tourists on overseas ships calling at the Port. Their reaction has been most favourable. Over the 30 year period required for the maturity of a crop of pines, tourism may well earn almost as much in revenue. Two examples of tourist earnings have just come to us. First from the Darwin Tourist Chief a report that in 1963 18,000 tourists were worth £2,800,000 to the Northern Territory, and second, about 1,000 men of the Russian whale factory ship drew £75,000 to spend on two days leave in Melbourne recently.

This was only direct money. There were pilot, wharfage, harbour fees, telephones, water and all provisions taken on board during the stay. And how much did the 50,000 people spend in one day in going to see the ship? The visit of that one boat alone would mean about £250,000 to the State.

4. The preservation for all time of Geological features - Flora, Fauna and wildlife for the Community and the Scientist.

This is by far the most important purpose of a National Park, insofar as the earth's vegetation and animals provide the three main essentials for man's existence: food, clothing, shelter.

Before considering our own case it may be as well to see what is being done overseas in the conservation of the natural habitat. In U.S.A. present reserves total over 20,000,000 acres, with another 6,700,000 acres about to be added, and a further 60,000,000 acres being reviewed for inclusion as wilderness reserves.

U.S.S.R. is following similar lines. Accent in both cases is based on conserving the natural habitat, for this ensures the

preservation of all life within the habitat. Nearer home, New Zealand has just set aside 400,000 acres for its tenth large National Park. The South Australian Government has just repurchased 90,000 acres in the Flinders Ranges for a National Park, Victoria's 380,000 acres for all Parks is insignificant when compared with these figures.

For us substantial nature reserves provide sources of biological learning. They provide training for students in Zoology, Botany, Agriculture and Forestry, and are just as important as laboratory facilities at the University. Moreover the study of soil in its natural habitat enables the research worker to advise on land use, its possibilities and its limitations.

Above all, the wholesale destruction of the natural habitat can mean the destruction of new sources of drugs and food crops. A few examples of Australian plants that are already contributing to man's everyday life are worth noting. The Corkwood tree growing on the north coast of N.S.W. yields the drug Hyoscene which is used extensively in preventing motion sickness. Penicillin came from moulds which are of course part of the ecological setup in any plant community.

A drug extracted from a plant growing on the Atherton tableland in Queensland is giving outstanding results against Leukaemia in animals. Oils from the Eucalypts give a wide range of products including, antiseptics, inhalents, perfumes, sheep dip fluids and stain removers.

Rutin, a drug extracted from the leaves of the red Stringy Bark is used effectively in certain conditions of high blood pressure. These are only a few of hundreds of plants which are making a tremendous contribution to our everyday lives.

Recent research work has shown that birds of the natural habitat make a far greater contribution to the control of insect pests of our agricultural industries than is generally supposed. The preservation of the natural habitat ensures protection for all the bird life it contains.

Preserved areas of natural vegetation also provide a means of biological control against some insect pests. The latest discoveries in this field come from eastern Canada, where it has been found that if apple orchards are placed alongside a belt of natural timber no trouble is experienced with codling moth, and from the U.S.S.R. where strips

of plants are placed in the cabbage patch to feed parasites which in turn control the pests of the cabbages. Warnings from health authorities both here and overseas about the extensive use of insecticides are focusing attention more and more on finding means of biological control for insect pests of our agricultural and forestry industries. From where will such controls come if we destroy our native negetation with its fauna?

Here the incomparable words of William Vogt are timely:- "Because we have not lost more of them, because we are still possessed of considerable wealth of wildlife, many of us have remained unconcerned. This is ..... like melting down Cellini vessels with the justification that those of Leonardo remain .... but the vessels (if we overlook what they tell of their creator and his time) are dead things, contrived in a few weeks or months. The Condor that rides the wind over the California hills, the Eskimo Curlew that spanned two continents with its crying, were millions of years in the making. The very forces that shaped the earth moulded their form, determined their destiny. Through thousands and tons of thousands of generations, the wind and the cold, the march of the seasons, the changes on land, the failure and success of plants and the craftiness of enemies hammered at the malleable substance of those creatures. Endless sorting, endless discarding, endless change brought them to ultimate perfection for the world in which they live. Can man .... afford to smash the crucible in which they have been refined, reduce them to a mere memory? .... Not, it seems to me, without pitifully impoverishing himself."

Conclusions from above.

The proposed National Park has a wide measure of public support.
It is readily accessible.
Topography is varied and interesting.
Several high points are accessible to serve as lookouts.
No comparable area in Victoria can provide such a wealth of Geographical features, Flora and fauna.
Fossil caves are providing valuable information on the Fauna both past and present.
642 species of native flowering plants and ferns, 88 species of mosses, 296 species of fungi, 53 lichens and liverworts, 161 species of birds and 37 species of animals indicate the diversity of the natural habitat within the proposed Park area.
Many plants listed here are to be found only in decreasing numbers

in other parts of Victoria and South Australia, and their survival is in jeopardy.

The survival of the fern gullies on the Moleside creeks is dependent on permanent running water, which in turn is dependent on the preservation of the watershed of these creeks.

Any further intrusion of farm land on the watershed area would upset the ecological balance and eventually destroy the whole of the eastern area.

With the expected rapid expansion of Portland it is imperative that sufficient areas for recreation and relaxation be set aside in the initial stages of development, which is now.

The area being Crown and Forest land could be set aside now at very little cost to the taxpayer.

A small part of the eastern sector may be suitable for farmland, and a small part of the western sector may be suitable for pines. Both these types of land are needed in the interests of conservation because they consist of a different kind of habitat and thus give further variety to flora and fauna.

The proposed Park is well placed for tourism. It would cater for tourists from Victoria and South Australia as well as those from overseas.

Overseas tourists have already started to trickle in at the Port.

It will preserve for all time the Geological features, Flora and Fauna for the community and the scientist.

Substantial nature reserves provides the source of biological learning. It provides training for students in Zoology, Botany, Agriculture and Forestry.

The natural habitat is one of the main sources of food crops and drugs.

It also provides the means for biological control of some insect pests.

Wholesale destruction of the natural habitat leaves man impoverished ecologically, culturally, and scientifically.

Editor's Note: The thanks of Naturalists everywhere go out to the Portland enthusiasts who spent so much time in the preparation of this appeal for a National Park. If future proposals in other areas can be supported by such a "Case", the chain of urgently needed parks will be lengthened more quickly and more effectively, to the benefit of us all.

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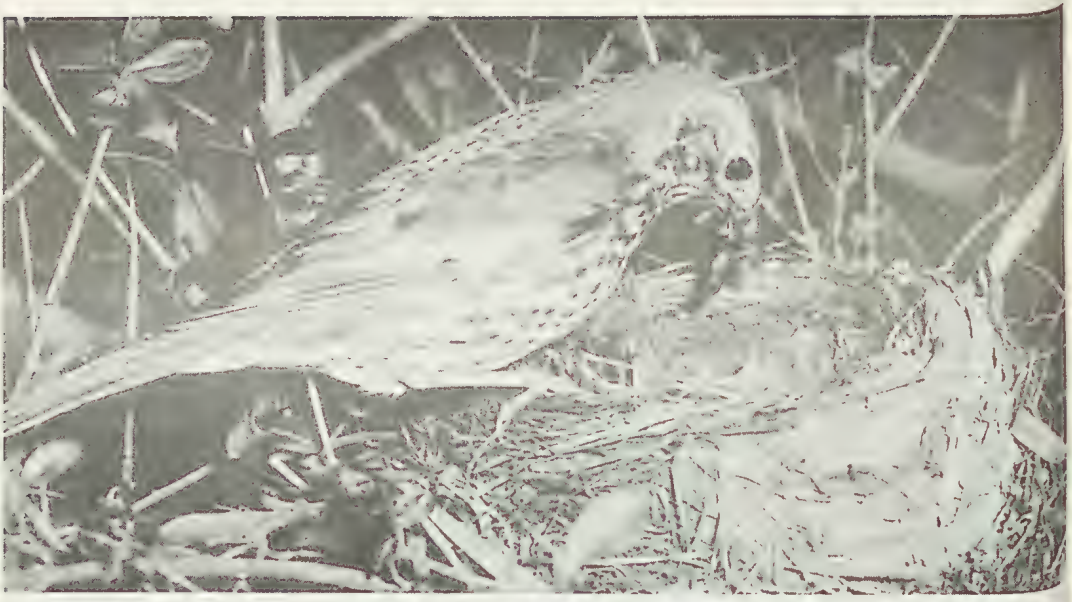
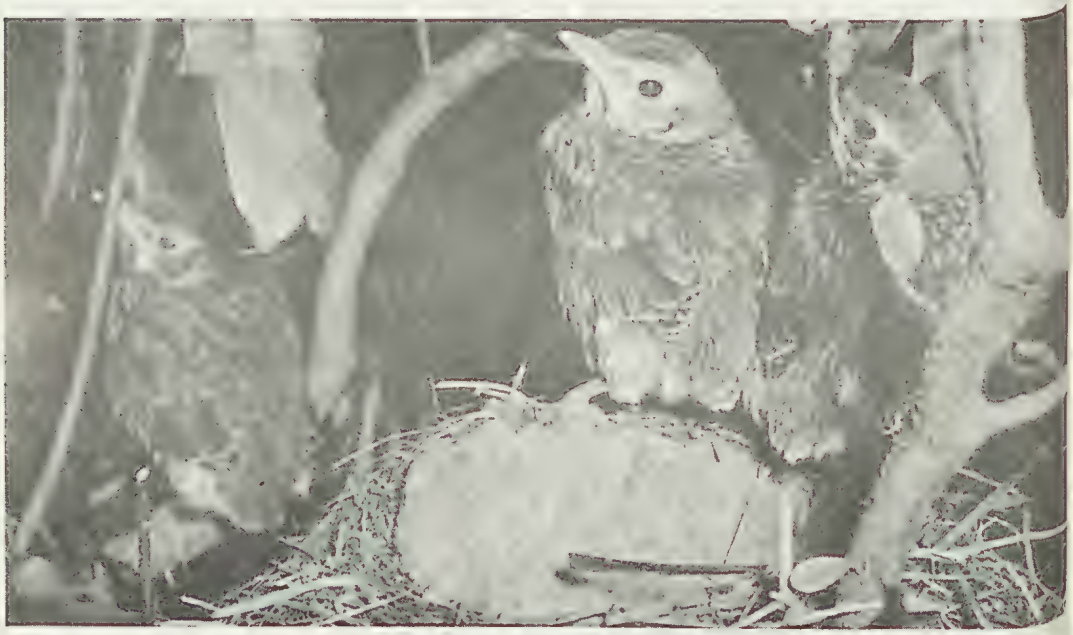


SONG THRUSH (TURDUS ERICETORUM) AT NEST



YOUNG THRUSHES READY TO LEAVE THEIR NEST

PHOTOS BY TREVOR PESCOTT

ENGLISH THRUSHES & A CHRISTMAS TREE

By George Layland

We had been holidaying at Queenscliff and had only just returned home in the morning three days before Christmas Day, when my wife upon opening a blind of one of the windows opening on to our side garden, excitedly exclaimed there was a bird's nest in the Christmas Tree. This tree, I might explain, is a Norfolk Island Pine, and when purchased some years ago for the purpose of a table decoration on Christmas Day, measured not more than 24" including the pot and looked very effective when my wife decorated it each year.

In the course of time, it had to be transplanted to a larger pot, wheeled in and kept at floor level on these occasions.

Getting back to the bird's nest, we decided it to be Blackbirds which had taken over, and that we would await events. It was not until Christmas Day there appeared to be life in the tree for it was then that the first egg was laid, followed by another each day until five were laid; and then the hen settled down to brood.

This was where problems arose as the tree was in rather an exposed position to the strong winds we get, and many times had been blown completely over breaking the stakes off from around the pot at ground level. Another problem was stray cats climbing up the trunk; the tree now measures 8 ft. 4 ins. from the ground with the nest 6 ft 3 ins. from the ground.

These problems, however, were overcome by driving extra pegs into the ground around the pot and cutting and fitting wire netting around the trunk on a lower set of branches sealing off the nest; all this was done with the hen quite unconcerned on the nest.

It was at this period we discovered to our joy that the occupants were English Thrushes no less, and that the cock bird was now in attendance occasionally, but more often in the nearby fruit trees singing lustily.

We were now able to clearly observe the attractive plumage of these birds, particularly on the head and breast, the brown being confined to the wings and back which at first lead us to believe the hen was a Blackbird.

When I now look back, these pleasant days passed all too quickly for us both, observing the regularity of these birds in their habits

with the tree often swaying in the wind in a setting of much foliage with the Barrabool Hills in the far distant, even people on Ceres Lookout can be seen through binoculars and, of course, the traffic to and fro.

Glorious sunsets are another wonderful feature to this little spot right at our door.

It was on the thirteenth day from when the last egg was laid that we noticed life becoming different with the cock bird now appearing on the scene, and his visits increasing from that day.

Later from a vantage point on a stair landing nearby, we were able to confirm there was a chick in the nest, and from then on when feeding commenced it became exciting to watch, particularly with the cock bird on arriving, loaded with worms and crushed snails.

Firstly, he would give the hen a taste of them, then use his head to lever her off the nest and then settle down to feeding the young (at times we could just see the chicks little heads above the nest), while the hen winged her way off in search of the next course for the family.

I think our garden must have provided most of this as the birds spent so much of their time around us here searching for food, together with another little fellow we believed to be from an earlier brood of theirs.

Little did we think all this was to end within a few days in tragedy as surely it did, for when my wife switched on the outer light one night (Friday, 15th January) to check if all was well in the tree as she had customarily been doing, she noticed the hen was not on the nest, which seemed strange, even though it was a hot night.

Well, we both hoped for the best, and did not feel we should risk investigating any further that night.

It was my wife, most worried and anxious for the birds' safety, who received the shock on going out the next morning before 5 o'clock to find the nest hanging down on its edge from a branch, with three chicks and broken eggs scattered about in the grass.

Heartbroken and sobbing, she gathered up the chicks and brought them

inside, but there was no hope of reviving them as they were cold.

On my looking out of a window an hour later, it was pathetic to see the little hen arriving on the path with her beak full of worms, and looking around in a somewhat shocked state as I was myself - really sick inside.

A telephone call to our Vice-President Mr. Jack Wheeler at 7 o'clock brought him around soon after breakfast. He had been most interested since I first informed him of the nesting, as many others were, and he hoped to obtain photographs when the birds were older.

Mr. Wheeler said possibly a cat was responsible for taking a different line of attack to which I anticipated when erecting the barriers.

I am still doubtful and puzzled, but thankful in the knowledge that the old birds are still alive and with us.

I noticed the hen one morning some days later, in the tree again surveying the cleared site, and I awaited a few days without results. I then reassembled the nest with the aid of wire to the branches again.

The irony of it all was that an excellent account of these Thrushes appeared in Nature Notes of the Ballarat Courier on the morning of the disaster.

****

OUR DISTRICT SURVIVAL OF THE SOUTHERN STONE-CURLEW

Geelong Naturalist

By Jack Wheeler

Sir Charles Belcher wrote in his book "The Birds of the District of Geelong" --- 'Well within my own memory it was a common species in the bush on each side of the Queenscliff Road, whereas now I doubt if one could find a pair of the birds on the whole peninsula east of Geelong'.

These words were written well over fifty years ago and it was apparent that even in those days the Southern Stone-Curlew was on the way out in this Geelong district. Sir Charles blamed the pestilential importation of the English fox for this decline and quoted that despite its loss on the peninsula, it could still then be found in isolated areas between Torquay, Gnarwarre and Mt.Moriac.

One may well ask, what is the status of this interesting bird in the districts mentioned at this present time?

During recent years I have searched for birds in the Torquay, Gnarwarre and Mt. Moriac districts on many occasions and even though the bird still exists there I am prepared to say that today, the position is reversed with the species holding its own and on the increase on the Bellarine Peninsula whereas in those other districts mentioned, it is nearing extinction.

How then has this come about, particularly in such a highly developed area as the Bellarine Peninsula?

There are three main reasons for this:

Firstly, with considerable development on the peninsula the greatest enemy of the Southern Stone-Curlew, the fox, has been practically exterminated from that area.

Secondly, sufficient habitat has been preserved for its survival; the species shows great preference for lightly timbered country interspersed with isolated groups of timber.

Thirdly, the farming community on whose properties the bird occurs, have been very instrumental in conserving habitat. Their ban on shooting and the eradication of the fox menace from these properties have also been very instrumental in its survival.

The Southern Stone-Curlew (Burhinus magnirostris) has an extremely wide distribution throughout the Australian mainland, even though

its numbers have declined in many districts, and in others it has disappeared altogether. Possibly its best strongholds are in the sparsely populated areas of central and northern Australia. However, when visiting Cairns in 1953, I found small flocks even within the city boundary itself and in the camping ground their strong nocturnal calls could be heard each night. Even at Cooktown in 1961, birds were regularly encountered on the camping ground within a few hundred yards of the main street. This indicates that the species will survive with settlement and particularly where foxes do not exist. This bird is entirely a ground dweller, nesting, feeding and sleeping there, and for that reason the fox is considered its greatest enemy.

Nests of these birds are rarely found; actually there is no nest construction, the usual clutch of two eggs just being deposited on the ground with no protection whatsoever. The eggs are extremely beautiful, being a creamy stone colour and heavily blotched greenish olive. They are much sought after by egg collectors and one local collector, for an overseas source, was offering five pounds for a set of two eggs. It is for this reason that more detail cannot be given and the complete story recorded.

It was in mid January of 1964 that local naturalists were able to observe two very small young and many photographs were taken. The age of the young at that time was estimated to be about ten days for they were at the stage when pin feathers were just beginning to appear. The downy covering was greyish with several black stripings.

One thick black stripe commenced forward of each eye and extended through the eye to break into two stripes, and extend along the back about one inch apart. Another black stripe commenced in the vicinity of the shoulder and extended along the side towards the tail.

On the head were two short black stripes, one over the crown and another across the forehead. There were tinges of rufous on the wings and the flanks.

One bird was smaller than the other and despite their young age, both had very sturdy grey-green legs with a long centre toe and it was noted that the fourth or rear toe was absent. The eyes were a delicate pale blue.

When found, both birds were usually together and beside a dry limb

on the ground. Watched from a distance it was usually the male parent bird which returned to the young first, closely followed by the female who would immediately sit over the young ones. It was noticed that on each occasion an approach was made to the area where the young were situated, the parent birds would never flush to fly but would run quickly to a nearby acacia hedge.

No broken wing act was observed. On other occasions, when small young were not about, the adult birds were easy to flush and would fly short distances. On one occasion when seven birds were observed in the one paddock, three of the birds appeared to be of immature plumage and kept running well ahead even though they could possibly fly.

During the past twelve months, two fatalities have been known to occur on the peninsula.

The first was the finding of a mature bird, dead, along the side of a back road and was probably the victim of a passing motor vehicle.

The second occurred when an injured bird came into my possession a few weeks ago. It had been found the evening before in a very weak condition and dragging one leg useless along the ground. It died from its injuries a few hours after I had received it. The injuries were such that its survival was always in doubt. It was of juvenile plumage and could have crashed into overhead wires during an inexperienced night flight.

So it is today, in 1965, with the known survival of the Southern Stone-Curlew on the Bellarine Peninsula, we can still here the nocturnal cries of that strang 'Wee-loo wee-loo wee-loo' within a few minutes drive of this expanding city of ours.

To the uninitiated, it is a weird and haunting sound but to the naturalist it is a cry of welcome, a cry which throws out a challenge to us all, for renewed effort in our fight for preservation of habitat so that for many decades to come this interesting bird can still find a home in its natural surroundings.

****

AT RANDOM

JOTTINGS AROUND A FARM GARDEN AT PARAPARAP

SPRING 1964

By Joyce R. Hunt

Feeding the chooks one day I noticed a dusky wood swallow carrying dry grass into a pine tree. They had not been known to nest here before, so I was interested.

As this carrying operation was repeated several times, the position was noted, and six days later I was thrilled to discover Mother Dusky Wood Swallow in residence on a nest at the extreme end of a pine tree branch about sixteen feet from the ground.

***

For several weeks only one of our two wagtails was around the garden so we assumed that Mrs. Wagtail was sitting on some well concealed nest. Her spouse kept guard over his territory - in the vicinity of the loquat tree, and his 'sweet-pretty-creature' song filled the garden from dawn to dark.

At last our searching was rewarded; there was the nest in the loquat tree, but such a frail, pitiful little nest - unfinished, unlined and empty.

What happened we don't know. Did some enemy deprive Willy of his mate, or did he start on his house, hoping to coax a partner into sharing it with him? He is still as cheeky and chirpy as ever, and his call is still cheerful. He hasn't even transposed it to a minor key, so perhaps he is still hopeful of finding "Miss Right".

***

Last summer a stray cat killed all our wrens; so, after months without them, it was a joy to find another pair nesting in the lavender bushes.

They brought out three young ones who are tenderly and carefully watched over by Mum, Dad and Uncle.

From the moment they were hatched, two full-plumaged males have been dancing attendance on the youngsters, feeding them shepherding them into the foliage or under the bushes at our approach. Watching them is a very pleasant way to waste time; but, is such time really wasted?

When we discovered a baby narrow-billed cuckoo under the empty wrens' nest we were appalled; so it was with great relief we made our first sighting of the wren babies.

The cuckoo stayed around, often at the base of the salvia bush near the back door where he evidently found plenty to eat, and also afforded us opportunities for close study.

There are numerous tomtits about the garden, so it was no surprise to see one in the salvia. We were surprised though, when the tomtit started feeding the cuckoo!

How unkind of Mother Cuckoo to impose on the tiny tomtits. The young cuckoo was four times the size of the tomtit that was feeding it.

Considering the shape and ingenuity of the tomtits' nest, with its cute side opening, how did mother cuckoo deposit her egg in a tomtits' nest?

***

UNUSUAL NESTING SITE

By L. W. Elms

While doing a cruise on the Murray at Mildura by paddle boat last October, we were intrigued by the number of swallows which accompanied us during our two-hour trip.

The tour conductor explained that these birds built their nests inside the paddle boxes whilst the boat was tied up at the wharf, and thereafter they escorted every trip the boat made, so as not to get too far away from "home".

*****

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NATIONAL MUSEUM OF VICTORIA

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GEELONG FIELD NATURALISTS CLUB

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WANDERING ALBATROSS

HON. EDITOR: TREVOR PESCOTT

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COVER PHOTOGRAPH

Wandering Albatross in Flight.

Photograph by K. Campbell.

GEELONG NATURALIST

NATIONAL MUSEUM
4 JUN 1975
OF VICTORIA

EDITORIAL

Vol.2 No.2 July 1965.

We do not have to look far afield to see how extremely urgent is the need for the preservation of tracts of our bushland sufficiently large to allow the ecological balance to remain. A typical example of how quickly our bushland can vanish is the areas on either side of the road to Anglesea. Near Point Addis, a huge area of hundreds of acres has been bulldozed; at the Forest Road turnoff is a slightly smaller area also razed. Opposite Forest Road, a square mile of messmate forest is suffering from wood-gatherers, rubbish-dumpers - and from exposure to drying north winds which whip in through the clearing across the Anglesea Road. Further on, vast areas of systematic and haphazard pine growing has scarred the hillsides, a fate just as devastating as land clearing.

For a long time, the brunt of research work into the need and value of potential Reserves and National Parks has fallen on amateurs, a task never-the-less undertaken willingly. But time is the most valuable commodity, and at the best one or two days a week can be devoted to investigation work - and progress is very slow. The overall aspect has been one of frustration, for the areas under consideration were destroyed literally as we studied them. In many cases, months and even years of study, and repeated requests for permanent reservation, were of little use, for the study area would be wiped out despite all the attempts at preservation.

Up until now we have all felt rather helpless at seeing these signs of "progress", for the most we have been able to do is to urge for the setting aside of adequate reserves. Most of our pleas are hampered by lack of time, experience, and "force" to push our claims home to the authorities. The relevant authorities, too, are over-burdened with many virtually unsupported claims for reserves, and they lack staff and finance to do the necessary research and site investigations.

Now, the Victorian National Parks Association has taken a bold and extremely important step. By a series of carefully planned phases, it is proposed in about fifteen months to completely assess the status of all reserves in Victoria both those existing and proposed, along with a forecast of future needs. To do this work, a trained Ecologist has been employed by the V.N.P.A.

To be able to see the scheme to a satisfactory conclusion, finance is needed and an appeal for funds has been launched by the V.N.P.A.

In a letter to the Geelong Field Naturalists Club, Mr. J. Ros Garnet, Hon. Secretary of the Association, has urged all members of our Club to support the appeal; the Club itself has sent a contribution to the V.N.P.A., but it is by the generosity of the individuals that the appeal and consequently the proposal will succeed. There should be no need to emphasise just how necessary is the success of this proposal - so please give it the support it warrants. Donations can be forwarded to Mr. Ros Garnet, 23 Camdon Street, Pascoe Vale.

TREVOR PESCOTT
Hon. Editor.

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DEAD AS THE DODO

(Printed by courtesy of the B.H.P. Review)

No one who has turned from the treadmill of his daily toil long enough to look around him and consider the vast circumstance of Nature, can fail to have perceived that, though all things change, there is a trend to equilibrium throughout the universe.

Two imponderable and tremendous forces are everywhere and always at work, each balancing the other, or nearly so. The revolving galaxy, the rotating solar system and the spinning globe all try to fly apart, but are held from doing so by counteracting forces of gravity. The pressure of the great sea of air lessens at one point, but huge waves of wind rush in to fill the gap; the level of the sea is maintained round the earth despite the varying pressures of wind and earthquake, erosion and evaporation. Nothing is at rest, but all things tend to balance. All permanent change must evolve with more or less gradualness if it is to be durable and beneficial.

Nature has seen to it that sudden change is catastrophic. In the world of inanimate things, coasts, seashores, hills, fields and even mountains slowly erode, slowly grow and perish, and the face of the earth changes as the face of a man growing old. The life that inhabits the earth becomes inured and accustomed and adapted to that change; conditions are tolerated, the balance of nature adjusts the pennyweights of evolution.

But let a major cataclysm occur - a Krakatoa dissolve an island in thunder, a whole vista of forest be devastated in a fire storm, an Atlantis sink beneath the sea, another Black Death decimate civilization - and the effects are terrible and far-reaching. Nature will not tolerate attacks upon her equilibrium - someone has to pay.

If this is so with inanimate matter, how much more so is it with sentient creatures? The tragic destruction that can fall upon them when they are displaced from the razor's edge upon which they - and we - balance between death and non-birth, is total and final. One would think then, that nothing would be done deliberately to shatter this fine balance, established by a million years of upward climb from the amoeba, and that everything would be done by thinking beings to preserve it.

But this is not so. A recently-arrived species on this planet has done, and is doing, more to destroy other life than all that nightmare plagues and pestilence and natural calamity have done since azoic times. He is not always doing this deliberately so much as through indifference, ignorance and thoughtlessness. This arch-enemy of natural law is the genius Homo sapiens, or "wise man" as he calls himself.

There are today upon the surface of the earth some 3,000,000,000 of us human beings - three thousand million persons, all with hungers and fears and needs; some with dreams and hopes for themselves; a very few with thought for others of their own and other kind. This incredible family of man has increased in our century by 500 million; it will increase by an unbelievable forty-seven thousand million by the 22nd century if present trends continue. Our great-grand-children will each have only a fiftieth of even our own significance (or insignificance) as individuals. A long look ahead at even further horizons of time presents an even more horrifying prospect of nonentity for those who come after us.

But this recession of man's significance, the prospect of virtual disappearance of individual members in this frightening fecundity, is only part of the threatened tragedy of man's future. For he lives in tribal areas of stultifying limitations, though of sprawling size. Day by day, year by year, his cities march across the land, destroying not only its visible beauty in tree and grass and river, but pursuing endless and undeclared war upon almost every other animal than himself, for whom, equally with man, the good earth was left as the home and shelter and bountiful Mother by preceding generations. Man, in short, has established a shameful record of rape of the earth, destruction of his fellow species, and depletion of his own means of existence.

There are some awakenings. We are even now feeling the pinch. Conservation of what billion of years of nature has given us is already a matter of concern to some. We haven't yet run out of air, but of two of the other actual needs for survival we are being forced to take stock. Not a drop of water has been added to the earth since its creation, but what was ample for a family of Neanderthalers in the dawn of human history has already come to present a fearful threat of inadequacy today. And as to food, who has not been made aware of the hunger for actual sustenance that stalks a thousand million of our own kind throughout their shortened and unhappy lives?

But there are other needs that fill the heart of even the most sophisticated and well fed - needs to return to Nature itself, to walk among trees, to feel the soil like Antaeus of old, to hear birds sing, to watch clear water run over stones, "to lift up one's eyes unto the hills" - these, in one form or another, are as essential to man's fullness of life as food and water are for his stomach.

What has this destructive species of ours done, in general, about coming to terms with all-powerful nature? In general, under the guise of "mastering his environment", he has tried to destroy every competitor, and indeed many who do not compete. He has failed to realize that upon other forms of life, his own depends. He has attacked the balance of nature in many areas, with catastrophic results to himself, to other forms of life and to his descendants.

In early America, there was a bird known as the passenger-pigeon, the numbers of which were such that they were described by early pioneers as "darkening the sky". They existed in countless millions; it would have been thought impossible to them to have been even reduced in numbers. The white man came; and the

passenger-pigeon was slaughtered for food, for "fun", even for fertilizer, at such a rate that by 1898 not a single wild survivor of those enormous flocks was left upon the face of the earth, and the last pair in captivity died in a zoo in 1914. The story of the bison is almost as one with this disgraceful episode. Their herds blanketed the prairies from horizon to horizon at one time in the recent past. After the Buffalo Bills had finished, it was perilously close to the "survival threshold", and only Government action, almost too late, has retained a few thousand in reserves for today's children to wonder at.

We Australians are far from guiltless. Since the middle of last century, many thousands of fur-seal have been killed in Bass Strait, and, though today many survive in protected colonies, they are extinct in some islands. And what of the lovable koala, the harmless and unique creature "to the manna born"? A century ago it was to be found "in every second gum tree along the Murray". Then the slaughter started, and by 1900 it was rare in its natural state outside Queensland. Nearly 58,000 skins of koalas were sold in 1908 alone in N.S.W. In 1927, Queensland declared open season on koalas and licensed 10,000 trappers; in that gloomy year 600,000 skins were exported! Today, because of strict legislation and the activities of departmental officers, the picture is happily changed in part of Australia at least. Within the past 35 years some 7,000 koalas have been liberated in natural state in Victoria alone and the species is "re-established at a sound level". But how close they were to catastrophe!

The greatest oddity of nature in history is probably the platypus, but few Australians have ever seen this harmless creature except in a tank - hardly any in natural surroundings. The reason is not only that it was hunted for its pelt, over fifty of which were needed to make a single rug, but also that man has so greatly disturbed the habitat of the platypus that its numbers inevitably diminished. It is true that some thinning out of all grass-eaters (wild or domestic) is needed from time to time, but there is grave danger of one or more species being exterminated by the careless and the ignorant in the process.

The fact is that man has no more natural right to the land than have any other forms of animal life. In his battle to seize and loot nature, he cannot win in the long run. He lives on vegetable life, or upon other forms of life which have a vegetable diet. He is part of what is called the "biotic community" and he upsets the balance of this at his own peril.

It is true that many authorities and bodies wish to set bounds to man's interference with natural communities of vegetable and animal life. More and more people, as individuals and in groups, are concerned to preserve, certainly not all wild life (which is manifestly impossible), but all forms of wild life, by preserving the habitats that make their existence possible. Areas of greater or less accessibility, size and variety have been set up all around the globe as national parks or reserves. But apart from parks and reserves, whole vast areas of genuine wilderness are required around the earth. A park with motor-roads and picnic-areas, littered and despoiled, from which stream and tree and bush, bird and animal and insect are banished by man's habits, is not a park; it is an uninhabited slum - a desert. Even land remorselessly swallowed by spreading cities could be more beautiful than it is; but most sub-divisions see the bulldozer shortly after the surveyor, and long before the occupier: they never thereafter see the same animal and vegetable life at all. A part of Nature has gone forever, and man's life is the poorer.

Such is the consequence of man's failure to realize that, as the philosopher Spinoza remarked, "Humanity is not outside Nature or superior to it. Man is an integral part of Nature itself".

It would seem that, unless conservation of both the living and non-living things around us is pursued with fervour and constancy by us all, whatever our politics and beliefs, we will leave to our children a world of technical intricacy but spiritual and emotional bankruptcy. And in a very few generations, man himself will suffer the same fate that he has inflicted, and is still today inflicting, on others; he will follow the great auk, the passenger-pigeon, the Tasmanian aboriginal and the thylacine, into the limbo of the lost. He will, in fact, be as dead as the dodo.

(Reprinted by courtesy of the B.H.P. Review)

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"CREEPY - CRAWLIES"

By L. W. Elms

"Creepy - Crawlies" was the general description adopted by Mr. John Landy to cover many of the small creatures he had photographed when he gave his excellent display of colour slides at the inaugural meeting of this Club.

"CREEPY - CRAWLIES"

One might well ask just what are "Creepy-crawlies", and how does one distinguish one type from another? A good question!

To mention just a few, we could consider worms, leeches, centipedes and caterpillars.

Worms are a group of many types of creature, whose bodies are long and thin, with little difference between head and tail ends, and which move about without the aid of legs. A common example is the earth-worm, with the many segments of its body giving it a ringed appearance. Each segment has four pairs of short bristles, and movement is achieved by the concerted action of these bristles along the lower surface of the body. Also each segment is separated from its neighbour by a transverse wall of tissue, and the intestine is a straight tube through these tissue walls, from the mouth to the rear end of the body. The front end contains the mouth, a sort of brain, and five pairs of hearts.

They feed on earth, from which organic matter is digested, and the indigestible matter is passed as worm casts. In this process they build small burrows in the earth, and thereby aerate it, and at the same time they bring to the surface much of the lower soil. It has been calculated that there could be 50,000 earthworms in an acre of good land, and that they bring to the surface more than 20 tons of soil annually. "Agriculture would become almost impossible without the help of the lowly earthworm", said Charles Darwin.

Dr. Oliver of Los Angeles, U.S.A., breeds earthworms by the millions for despatch to other peoples gardens. South-west Canada and northern U.S.A. have no natural worms, but the little gophers cultivate the soil instead by digging their burrows. The most famous worms are the South Gippsland giants, which have been found up to ten feet long, and about an inch thick.

Leeches are another type of worm, found mainly in fresh water and moist forest scrub. They have a large sucker towards the rear which enables them to move about or cling to their host while feeding. The front end has a sucker also, in the centre of which is the mouth. Unlike the earthworm, they live on blood which is sucked from the host, and at the same time hirudin is injected into the wound to prevent clotting, and thereby keep the blood supply flowing. The blood is taken into the leech's "side-pockets", which can hold enough to last it for months as a food supply.

Centipedes and millipedes are different from earthworms because they have legs. The body consists of a series of rings each of which has one or two pairs of legs. Centipedes are carniverous and poisonous, the first pair of legs being claws connected to the poison

glands. The bite of some tropical centipedes can be as dangerous as that of a snake. They feed on worms and insect larvae, and are very quick movers.

The millipedes are relatively inactive, and are vegetarians. The first four rings of their bodies do not have any legs on them. They are not poisonous, and if disturbed will coil up into a ball and pretend to be dead. Its only form of defence is to secrete a fluid with a sickening smell. While the centipede has about 21 pairs of legs, the snake-millipede has about 99 pairs.

Worms, leeches, centipedes and millipedes are all creatures with no skeleton, but another branch of this group is that of the reptiles (snakes and lizards), which are distinguished by their bony skeletons.

Caterpillars of course are quite a different type of "creepy-crawlie", being one of the life-stages of the moths and butterflies. Most moths begin life as eggs which hatch into little caterpillars. These are vegetarians, and they seem to eat continually. This is probably to get sufficient nutriment and energy to carry the life-cycle on to the moth, because moths and butterflies eat practically nothing at all, except perhaps a little nectar and dew. When fully grown, the caterpillar changes into a chrysalis, sometimes in a spun cocoon, and in this stage it uses up no energy, but sustains an internal re-arrangement. The moth or butterfly which emerges eventually from the chrysalis, and carries on to lay her eggs in due course, is a very different type of creature.

Caterpillars therefore cannot be linked with worms, leeches and centipedes, but after watching one marching along a branch, operating his funny little short legs, with suckers for feet, in such orderly precision, one would have no hesitation in classifying him as a "creepy-crawlie".

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"THE HAMERSLEY RANGE"
By Jack Wheeler

Visiting strange and far away places, can have an enchantment all of its own; to many, the beauty is lost by lack of interest or perhaps lack of intelligence but to the naturalist, nothing is lost, as the world around us is one to explore, study and preserve.

"THE HAMERSLEY RANGE"

Let us now visit the Hamersley's, an area, perhaps unknown to most of you but an area once visited, has many attractions for a return visit.

Bordered to the north by the De Grey River and in the south by the Fortescue River and Hamersley Range, is a vast area of mineral wealth, where over the years such minerals as gold, copper, lead, zinc, emery, asbestos and a host of others, have been successfully mined. Recent surveys have revealed enormous deposits of high grade iron ore to exist in the Hamersley's, a range of low rugged ridges and hills extending for almost 200 miles in a south-easterly direction below Roebourne, in mid-north-west Western Australia.

This part of the north-west is very prone to draught conditions, the brick-red soil reflecting the suns-rays in extreme heat, a grim harsh country of inhospitable moods and loneliness.

Good winter rains are necessary to transform these barren soils into a riot of plantlife and colour which have to be seen to be believed. The winter of 1963 was a season of more than average rainfall and travelling down from the Kimberley's, we chose the new south road from Pt. Hedland, west but parallel to the Great Northern Highway. This would save us many miles and bring us out at a point near Yampire Gorge, in the eastern region of the Hamersley's.

Roads have played a major part in the development of out-back parts of Australia and in this region, towns like Marble Bar, Nullagine and Wittenoom are no longer places of isolation.

The previous day we had traversed the once treacherous Pardoo Sands, a flat treeless tract of country, monotonous in many aspects and an area which in the early days had claimed many lives. On this day it was a transformation we shall never forget. A few miles south of Pt. Hedland, the country changed to undulating rocky outcrops and areas of gibber. It was here that 'Nature's Garden' had transformed the whole region into one of outstanding beauty. The predominating plant was Sturt's Desert Pea (Clianthus formosus); it covered mile after mile of this desolate land. The handsome grey-green foliage was in marked contrast to the vivid red flowers with their distinguished central purple-black keel. Here, were colourful plants in great profusion amongst gravelly and rocky ridges, others had crept over great clumps of spinifex and along dry watercourses, but the best show came from clumps in loose sand. Many other varieties of attractive plants added their colour to the scene, many were prostrate forms, one of the most beautiful being Triathema glossotigma with mauve-pink flowers. In other areas, Cotton Tails

(Ptilotus exaltatus) were most abundant and were with us for many miles, in fact we classed it the most abundant plant of the whole of the North-west.

This was the domain of the Wedge-tailed Eagle in the air and of the finches on the ground. Watering points attracted large flocks of many species but it was the finches which were most abundant.

It was when approaching a large sandy plain of mulga scrub, that we had our first glimpse of the Hamersley's and from forty miles, they appeared a uniform row of deep purple hills that fairly danced in the strong mirage of the afternoon's sun. We had by this time left Nature's Garden and here, in mulga country our variety of birdlife had increased. Here were many species that we had experienced in the Centre only a month before; Wedgebill, Crested Bellbird, Blue and White Wren, Crested Pigeon, Black-faced Woodswallow and Pied Butcher-bird, all in abundance. This, also, was the home of the giant Red Kangeroo and Emu; many we disturbed as we sped south in a great whirl of red dust.

From a few miles, the Hamersley's, in the late afternoon's sun, had changed to a fiery red, a colour which only the 'inland' can produce.

Our entry into Yampire Gorge was one of splendour; Cotton Tails, their purple heads waving in a gentle breeze, covered many acres and in the gorge itself flowering shrubs of many varieties were experienced. The most outstanding of these was Grevillea agrifolia, a plant with most attractive red, yellow-tipped flowers. In the Gorge proper, we paused to inspect the old workings of blue-asbestos. Gaping tunnels in the rugged cliffs and concrete machinery foundations are the only indications of great activity in the past. Seams of the valuable blue-asbestos is still visible, some narrow, others at least three or four inches thick. Today all is deserted and nature has taken over, creepers cover the foundations and bats occupy the tunnels. It was a delightful spot; birds of many descriptions were busy in the trees, mostly shady eucalypts and many were coming in to drink and bathe in the pools which told of recent rains. Strangers to us, were the attractive Painted Finches and the Red-plumed Pigeons. This latter bird closely resembles the Spinifex Pigeon of the Northern Territory but has a chestnut abdomen. Both species have a most attractive spindly crest and are most trusting in their habit, so much so, that many become victims to the rifle.

Grevillea agrifolia

Triathema glossotigma

Ptilotus exaltatus

Clianthus formosus

WILDFLOWERS FROM THE HAMERSLEYS

Beyond Yampire, the road climbs to a type of plateau on the summit of the range, and here there is sparse mulga and spinifex. It is a picturesque road and in the late afternoon, many ground-feeding birds were disturbed. The road ends most abruptly, so much so, that one wonders where to go next; yet only 50 feet from where the road ends, a remarkably different world is experienced. Standing on the brink of a towering cliff face, Dales Gorge was revealed, extending as a great ravine as far as the eye could see. Hemmed in by almost shear walls of rock, was an oasis in a barren land. Tall eucalypts spread their spindly limbs towards the summit of the gorge and yet were many feet below us and a distant waterfall revealed the presence of cool sparkling water.

Bird calls were coming from the depths of the gorge which was now shrouded in deep shadow, whilst the last ray of sunlight was only visible on distant hills. I worked out our elevation of approximately 1,500 feet and here almost 300 miles from the Indian Ocean, there was a nip in the air which suggested firewood for the fire and extra blankets for the bed.

Next morning was spent in exploring the gorge itself, which revealed an extraordinary variety of plant life, from grasses and tussocks to many tall shrubs. My greatest surprise was to find clumps of maiden hair fern growing under ledges of the northern cliff where sun never penetrates. Bird life was plentiful, the most common being Greenie, the White-plumed Honey-eater, Yellow Weebill, Little Woodswallow, Blue and White Wrens, Crested Bellbird, Port Lincoln Parrot, Willie Wagtail, Spiny-Cheeked Honey-eater and Pied Butcherbird. The only species found nesting was the attractive Painted Finch.

Time was limited and our stay at Dales Gorge was short but this visit was only one of many others we had to make in the Hamerley's, such as Witternoom, Millstream and Mt. Herbert, all enchanting places and will be dealt with in a future article.

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ALBATROSSES, GULLS AND OTHER BIRDS OF THE SOUTHERN OCEAN

Geelong Naturalist

Some interesting facts of their life and habits

By K. Campbell

During the past six years I have been privileged, as a result of my employment on Coastal vessels around Australia, to engage in what must be one of the most fascinating and interesting hobbies possible; the study of sea birds generally, and Albatrosses in particular.

In my early years I received some basic elementary training in Aerodynamic Science, and my chief interest in bird study is in connection with Flight Mechanics, and particularly that of the Soaring Sea Birds, of which Albatrosses and Gulls are outstanding examples.

It would be no exaggeration to state that the soaring flight of the albatross on a day when the wind is blowing a gale and the waves are up to 20 feet or more in height, is one of the grandest sights in the whole field of nature. To watch them as they appear to defy the laws of Gravitation and soar effortlessly on outstretched wings for long periods in any direction, with hardly ever a flap, is a truly magnificent spectacle. Over a period of about the last two hundred years writers have been going into raptures about them, and many competent scientists and observers have made a close study of the phenomenon, but still many regard their flying ability as mysterious and unexplainable.

In order to learn "what goes on" I have found it necessary, not only to refresh my meagre knowledge of Aerodynamics, but also study a variety of subjects, including Evolution, Physiology, Geography, Meteorology, and Navigation. In the course of this study, plus observation and Photography, I learned many other interesting facts.

Albatrosses - The common name of Albatros or Albatross, is derived from the Spanish Name for a Pelican -- Alcatraz, although it is difficult to understand why that should be, as the two birds have only the fact that they are water birds in common.

They are classified scientifically as belonging to the group of birds known as Procellariformes, a very long word which means they are a rare type with Tube Noses. The larger birds have a beak up to eight inches long, very sharp, with a hook on the upper mandible. The nostrils are extended out along the beak

in tubes along the upper side of the upper mandible about one third of the way along the beak, or up to nearly three inches. Scientists assume this feature is to provide a means of heating the air before it is drawn into the respiratory system, but remarkably enough other sea birds living under equally cold climatic conditions are not so provided. There are 13 species of Albatross, ranging in size from the very large Wandering Albatross (Named by Linnaeus, Diomeda exulans) with a wing span of up to twelve feet and a body weight of 20 pounds, to the Yellownose (so called because of a pronounced bright yellow stripe along the top of the black beak) and a couple of other varieties with a wing span of about seven feet and a body weight of 9 pounds. All have a similar body and wing profile in flight; at sea the varieties mix together indiscriminately and with Mollyhawks, Gulls and other sea birds, the albatrosses being particularly docile and showing no fear of man.

All are outstandingly efficient soarers, capable of remaining airborne for very long periods, the Wanderer being so called because of his habit of travelling very long distances. Many instances are on record of them having followed ships for distances up to six thousand miles. Later on I propose to discuss their soaring technique in greater detail.

Evolution - Scientists have estimated that the Albatross species has taken about 40 million years to evolve to its present state of perfection, whereby it has become perfectly adapted to its chosen habitat. The Tube Nose is only one of several specialised features developed by the Albatross in the evolutionary process, some of which are unique and of special interest to the scientist. Their bones are mostly hollow, even down to the toes and to the wing tips. Some of the bones are internally reinforced to withstand the enormous stresses imposed in flight, and they have an additional "patelloid" bone in the "elbow" joint of the wing which performs a similar function to the patella in the knee of man, enabling him to adopt the erect posture without fatigue. In the case of the bird, it enables him to maintain the wing in an outstretched position for long periods. Their respiratory system possesses, in addition to the lungs, no less than five large air sacs. Thus, their body possesses a specific gravity of 0.5, instead of 1.0 in the case of man, which enables them to ride high when resting on the water, provides a reservoir of heated air to assist in maintaining body warmth, and also assists in making the body a perfectly streamlined

shape in flight. Like many other birds, they have a very rapid body metabolism, high pulse rate, and extremely rapid reflex actions. As a flying machine they are dynamically very unstable, and control in flight is exercised through automatic instinctive reflex actions. Their powers of sight and smell are also far more acute than in the case of man.

Habitat - With the exception of two of the smaller varieties, about the same size as the Yellownose, and known as the Laysan and Blackfooted Albatross respectively, and whose breeding ground is on the Midway Islands in the Northern Hemisphere, about 1,300 miles Northwest of Honolulu, all the Albatross species are confined to the Southern Hemisphere and normally range right round the world between 30 degrees South and 70 degrees South, being rarely seen outside those limits. Their nesting grounds are on isolated Island groups scattered round the world, mostly between 50 degrees South and 70 degrees South. In this region 14/15ths of the world's surface is water and it is extremely cold and very windy most of the year. However, there is an ample food supply.

The Albatross's main item of diet is the squid, which comes to the surface at night. The birds do not fly at night, but rest and feed on the surface of the sea. They are voracious eaters, with a rapid digestive cycle, which is probably their main reason for following ships by day, as they obtain a lot of food from the ship's garbage. They also eat small shoaling surface fish. They do not dive for food. They normally never perch or sit, except when on the nesting grounds. They have only 3 toes pointing forward on their very large fully-webbed feet, with no rearward-pointing perching toe, so they never alight on ships except rarely by accident. Also, they cannot take off from a ship's deck, as it does not allow enough room for the necessary up and down wing movement. When taking off from the sea they paddle vigorously into wind until they gain enough speed, and then spread their great wings. Once airborne they can remain so by soaring in all but a dead calm.

There are a few small rookeries outside the limits mentioned above, notably on Albatross Island off the North West coast of Tasmania, and on Islands off the New Zealand coast, but generally they seem to prefer the cooler latitudes. They have few natural enemies, and their life span is estimated to be at

least 30 years, consequently apart from depredations by man there i not much likelihood of their becoming extinct. A few years ago a census was taken of birds nesting on South Georgia Island, the principal home of the Wanderers and a few other varieties, and over 6,000 birds were counted. They lay only one, or sometimes two eggs, and do not always return to the nesting grounds every year.

Superstitions - The days of sailing ships were notable for many curious superstitious beliefs, in which the albatross sometimes played a part. One of the most common was that the souls of martinet skippers entered the body of an albatross after death, and they were thereafter ever condemned to fly around the world in those cold regions. Coleridge's famous poem about the ancient Mariner also featured the Albatross, and it used to be said that sailors would not kill them as it brought bad luck to the ship. This, however, was far from the truth, as on many occasions sailors cast away on their islands were obliged to eat them to live, and many a raid was made on their nests to take eggs and young birds, which were considered a delicacy. A great deal of wanton destruction took place also by hunters after curios. Nowadays their breeding grounds are off the main shipping routes, and they are not often molested. Various Governments and other organisatio also have declared their nesting grounds as sanctuaries and thus provide protection and facilities for research.

****

OLD COPIES OF "THE GEELONG NATURALIST" WANTED

The following copies of "The Geelong Naturalist" are required by Mr. I. F. McLaren, 235 Waverley Road, East Malvern, S.E.5, to complete his series -

Second Series	Volume 2	No. 1 (29),	2 (30)	Vol. 6	1-4 (45-48)
	" 3	" 4 (36)		" 7	1-3 (49-51)
	" 5	" 4 (44)			

If any reader can help, Mr. McLaren can be contacted at the above address.

REPORT ON BIRDS RECORDED BY G.W.R.G.* ON VISIT TO LADY JULIA PERCY ISLAND 27-12-64 TO 30-12-64

Compiled by Jack Wheeler

Personnel: Miss G. Bowker, Messrs. T. Fletcher, T. Pescott, J. Wheeler, G. Gaynor, C. Tingate, N. Young, S. Rowe, G. Carr, L. Barrow, J. Setford, M. Dexter, Hans Beste, P. Jeffrey, J. Meehan, D. Graham, B. Hall.

Weather:

27-12-64. Fine and warm. Afternoon overcast. Heavy swell. Wind. Force 6. N.W. to W.

28-12-64. Fine. Cooler. Wind. Force 6 to 7. W. to S.W. (Strong all day) Some rain overnight.

29-12-64. Fine and warm early. Cooler after lunch. Misty rain evening and overnight. Wind. Force 6 at first but later moderating. S.W.

30-12-64. Fine. Cool to warm. Wind. Force 3 to 4. S.W.

31-12-64. Fine. Cool to warm. Wind. Force 3. S.W.

BIRDS LISTED

(1) Little Penguin. (Eudyptula minor).

Fairly common. Breeding in certain areas on northern and western sector of island bounded by Dinghy Cove and Seal Bay. At Dinghy Cove breeding was in rock crevises, under rocks and base of cliffs. At Seal Bay breeding was noted mostly under rocks just below or on cliff top and in burrows bordering Short-tailed Shearwater rookeries. In some cases, breeding burrows were almost half a mile from the nearest accessible cliffs at Seal Bay. Breeding was well advanced with large young from the downey to well feathered stages. Several eggs were noted in deserted nests. Two eggs of one nest measured 48 x 42, 50 x 42 mm. Some dead of both adult and juvenile birds were noted about rookeries but cause of death was not determined. Birds were frequently heard calling from the sea, at various parts of the island.

Arrival time of birds at Dinghy Cove on the 27th was 8.32 p.m. to 9.20 p.m., when in all, 60 birds (approx.) came ashore. None climbed to the clifftops at Dinghy Cove. Rough weather prevented a check of arrival at Seal Bay.

(2) Stubble Quail. (Coturnix pectoralis).

Three birds flushed from bracken and thistles in centre of island. Birds frequently heard calling on the west side of camp site, situated above Dinghy Cove.

(3) Fluttering Shearwater. (Puffinus gavia).

Three noted at sea with Short-tailed Shearwaters.

(4) Short-tailed Shearwater. (Puffinus tenuirostris).

Breeding freely on many areas on island. Rookeries were distributed almost right round island, some extending as far as four hundred yards in from the cliff-tops. Rookeries were mostly overgrown with thistles, rushes or pigface. Some burrows were exposed with little or no cover and in these areas considerable erosion was taking place. The finding of many eggs on the surface of exposed areas suggests that burrows had been completely eroded by high winds. Several eggs examined were quite fresh. The largest rookeries were situated in large patches of thistles west of camp site extending towards Seal Bay, and in rushes and pigface in the region of Horseshoe Bay. This latter region was best suited for day banding, whilst night banding was carried out on cliff-tops between Dinghy Cove and West Cape, where thousands of birds, thought to be non-breeding, were easily caught as they rested away from the breeding burrows. Egg measurement of heavily incubated eggs were 70-49, 73-46, 68-46, 72-48, 77-46 mm. One young only, was noted in burrow near Delta Reef, and was approx. 4 days old. This was undoubtedly a very early breeding record for the area. The date of finding this young was 29-12-64, a good fortnight earlier than Port Fairy birds. No chicks were noted on the 1963 visit. On 30th, at 9-10 p.m. on cliff above Sphinx Head, one bird was sitting on what appeared to be a fresh egg, well away from any burrow. It was concluded that this bird had accepted one of the many laying about eroded areas.

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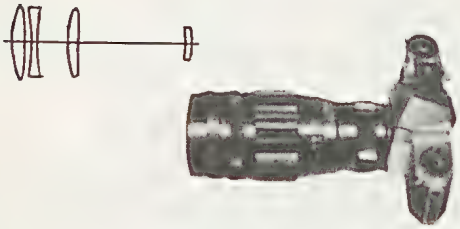

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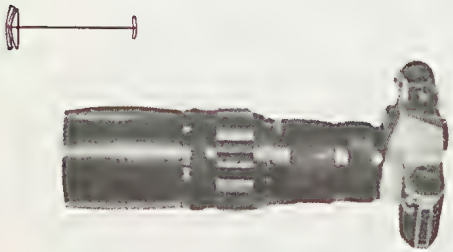

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Bird Arrival - Each evening between 8.15 p.m. and 8.30 p.m. On the evening of the 30th at 8.15 p.m. large flocks of birds came in from the sea, low over our camp. Such large flocks were not experienced on previous nights.
Dead Birds - Few only about rookeries. Conservative estimate of breeding burrows: 90,000.
Birds Banded - C.S.I.R.O. bands 1,327 birds. Re-traps. 30 birds.

(5) Fairy Prion. (Pachyptila turtur).

Many birds came each night to feed their young. Main breeding appeared to be in rock crevices and under rocks, at both Dinghy Cove and McCoy Platform. At McCoy Platform, the nests were high up near the top of the cliffs. On one evening, birds were observed coming in from the sea high over Sphinx Head and Square Reef but were not seen to land in that area. Their arrival at night was not as regular as the Short-tailed Shearwater's and Little Penguins. At Dinghy Cove the first birds came in on the 27th at 8.40 p.m. and continued to arrive as late as 12.15 a.m. the same night. On the 28th, the first arrival was 8.35 p.m. and were still arriving at 12.30 a.m. At Seal Bay, above McCoy Platform, approx. 60 birds arrived between 8.35 p.m. and 10.30 p.m., and here they were seen to disappear in rocky crevices a few feet below the top of the cliffs. At Dinghy Cove, birds were observed still arriving as late as mid-night on the 29th and 11 p.m. on the 30th.
Dead Birds - Two fully feathered birds were found dead at Dinghy Cove; neither were banded.
No chicks were seen but as the adults arrived each night they kept up a constant chirping. Adults handled had bulging crops of part digested sea food. No birds were seen out to sea during daylight.
Birds Banded - C.S.I.R.O. bands, 113 birds. Re-traps. 49. (Particulars on two re-trap bands were unreadable.)

(6) Diving Petrel. (Pelecanoides urinatrix).

Breeding appeared to be almost finished as few birds only were observed on the 27th and 28th, the first arrivals being at 8.35 p.m. on both occasions. They were only noted at Dinghy Cove. None were seen out to sea during daylight. Only one young was noted beside breeding crevice and same was almost fully fledged.

NANKEEN KESTREL AT LADY JULIA PERCY ISLAND

PHOTO BY TREVOR REGGETT

Dead Birds - Adults only, two at Dinghy Cove and one at Seal Bay. Cause of death unknown.
Birds Banded - C.S.I.R.O. bands, adults 6, immature 1. Re-traps, 1.

(7) Cormorant Sp ?

One largish black and white Cormorant observed flying out to sea but unable to determine whether Pied or Black-faced sp.

(8) Australian Gannet. (Sula serrata).

Frequently seen flying and diving out to sea.

(9) Crested Tern. (Sterna bergii).

Occasional birds out to sea.

(10) Arctic Tern. (Sterna macrura).

One skeleton found on cliff top off Delta Reef, by Geoff. Carr on 28th. Beak was black, and the cap mottled black and white. Forwarded to National Museum, Melbourne, for identification. Fourth Victorian record.

(11) Silver Gull. (Larus novae-hollandiae).

Twenty birds noted at low tide near Landslip Pt. and Dinghy Cove.

(12) Arctic Skua. (Stercorarius parasiticus).

One bird noted at sea on 27th.

(13) Sooty Oystercatcher. (Haematopus unicolor).

Two regularly seen at McCoy Platform and two at Sphinx Head.

(14) Swamp Harrier. (Circus approximans).

As many as seven birds observed about the central region of the island and were apparently feeding on the rabbit population. Only one nest was found, in a tall patch of rushes and contained two young of approx. 10 days old. Two unhatched eggs were also in the nest. On 29th one of the young was found dead in the nest.

(15) White-brested Sea Eagle. 1(Haliaeetus leucogaster).

Observed out to sea, one adult on two occasions and one immature bird.

(16) Peregrine Falcon. (Falco peregrinus).

Three birds appeared to be resident, two at Delta Reef and one at Landslip Pt.

(17) Brown Hawk. (Falco berigora).

Two birds noted over island.

(18) Nankeen Kestrel. (Falco cenchroides).

Two birds apparently resident in vicinity of Dinghy Cove. On late afternoon of 30th, one bird landed on to one of our tents and appeared terrified or stunned. It was caught, banded, photographed and later released.

(19) Welcome Swallow. (Hirundo neoxena).

Occasional birds about island.

(20) White-fronted Chat. (Epthianura albifrons).

Frequently observed amongst thistles and bracken ferns.

(21) Little Grass-bird. (Megalurus gramineus).

Frequently heard calling west of camp site. Occasionally flushed amongst bracken and thistles.

(22) Pipit. (Anthus novae-hollandiae).

Few only about thistle and grassy patches of island.

(23) English Skylark. (Alauda arvensis).

Frequently seen about island and much more plentiful than the Pipit.

(24) House Sparrow. (Passer domesticus).

Small groups about cliffs.

(25) Starling. (Sturnus vulgaris).

Common and breeding in cliffs.

(26) Homing Pigeon.

Remains of two birds seen. Both were banded.
One (leg only found), 8591 VHA/63.
Other was 4850 VHA/63.

Summary ...

Ornithologically, this island is an important breeding ground for four particular sea birds, Little Penguin, Short-tailed Shearwater, Fairy Prion and Diving Petrel. Few breeding areas are known along our coastline of the Fairy Prion and the Diving Petrel. Every effort should be made to have this island declared a Fauna Reserve and during the breeding season, same should be declared out of bounds for other than science groups.

* Geelong Wildlife Research Group.

*****

BROWN SNAKE AND THE BARWON

By Trevor Pescott

Recently, I was shown a newly sloughed skin of a very large snake; the skin which measured over 5 feet in length was not complete and the overall length of the snake must have been well over 6 feet. The skin was found by Mr. McClure at a motor-car store off Riverdale Road, Chilwell; this is not far from the Barwon River bank, and east of Princes Bridge.

Judging by the size, the most likely species would be the Common Brown Snake, which not infrequently reaches this size. But the Brown is a dry-country dweller, and the river is not the usual place to find this species.

Presumably it has come down the river in flood debris, but the question most of interest to Mr. McClure at the moment is - where is the snake itself?

FLINDERS PEAK

By L. W. Elms

Majestic Sentinel! We see you stand
Tall and dignified above the land
Which timeless ages washed around your feet.

Gravels and sands the elements have wrought
From your hard granite, and kind Nature brought
Animals and birds, trees and flowers, to meet
And make a Scantuary.

What countless changes you have seen!
At first the things, so naturally endowed, did hold domain
Until the black-man wandered o'er the plain,
And left the marks to show where he had been.

His hunting took him over all your slopes,
And trees and bark his housing needs supplied
While searching for some water springs, to tide
Him o'er the dry spells. He had hopes
Of more wildlife, to feed him and his tribe.

Thus life went on for ages, till the day
When Matthew Flinders climbed up to your crest
And viewed the land to north, south, east and west,
And made the first rough mapping of the Bay.

A century and more have passed since then,
And much has been disturbed by busy men
Making a modern world about you.
Cities, industries and transport meet your gaze,
While modern aircraft circle you, and raise
A roar of echoes that would scare
The tribes of blackmen, had they still been there.

Disdainful of all this, you stand there still,
Offering a haven for us to go at will
To see your flowers, trees and birds,
And gain a pleasure not expressed by words.

What of the Future? Can we plan
To save you from defacement by mere man,
And hand you on to all posterity
As a great Sentinel, gazing out to sea?

AT RANDOM
PARAPARAP NOTES
By Joyce Hunt

Dipping into the peg tin attached to our clothes hoist, I hurriedly withdrew my hand, literally black with ants! Drastic measures had to be taken in order to be able to use the pegs, and later the clean tin was back in place, and the incident forgotten.

A week later, however, the same thing happened - ants all over my hand and wrist; but this time the peg tin also contained a sizeable heap of the grass seed that my husband had carefully scattered three days earlier in an effort to make a lawn!
An example of persistANTS?

*****

The last day of March was a good day for birds at our place. While watering the garden I saw, within ten minutes, - one heron, one ibis, one wagtail, one grey fantail, one scissors grinder, one female golden whistler, two scarlet robins, two rosellas, numerous tomtits, red-back parrots and magpies, two 'cuddles' of dusky wood swallows with at least six in each - besides numerous sparrows, swallows and starlings, and of course, our own little wren family.

A total of sixteen different kinds in ten minutes.

*****

"There's no doubt about these Field Naturalists; they don't miss much." This remark, made in my hearing recently, was recalled a few days later when I discovered, quite by accident, the nest where our wrens had brought up their two autumn babies, hatched early in March.

The nest is in a small bush beside the path to the back door. Barely three feet from the path, people have walked past it twenty times a day without suspecting its presence.

Yet, having once seen it, we wonder how we could possibly have missed it.

Yes "they don't miss much" - only the most obvious things!

The babies, incidentally, were tail-less, and unable to fly on March 7th. By the 10th they were flying quite well and had tails three quarters of an inch long.

*****

"What might have been a tragedy was narrowly averted" - If the bird world produced a daily newspaper this could have been the opening line of this story.

In an earlier issue we told you about the swallows who built inside a carton in the rafters of the shed. This pair raised two families this season, probably three, but it was a difficult position to inspect often. After the last family had left the nest, I thought I detected a movement and wondered if Mother Swallow had a fourth clutch. My husband climbed up to investigate, and startled a fully grown young bird who fluttered frantically but did not fly away. Further investigation showed that one of the birds feet was entangled in the nest, and it took time and care to release it. It flew away immediately its foot was free. Evidently the parents had carried food to the poor prisoner as it was well fed and healthy, but I don't like to think what the result would have been if we hadn't bothered to climb up and look, as the bird could never have freed itself.

*****

FURTHER INFORMATION ON THE PLATYPUS CENSUS

By Jean Falconer

Between 1958 and 1963 in the fishing season, September 1st to April 30th, I have seen several platypuses.

Batesford (private property)

1. One platypus seen in late afternoon in Moorabool, south of bridge. It 'trod water' quite close to where we were sitting, even though we spoke in whispers while it was there - stayed about ten minutes.

2. One platypus 'trod water' in rapids in Moorabool about quarter of a mile south of bridge about midday - stayed about quarter of an hour (photo taken).

3. One platypus repeatedly surfaced and dived in deep pool. About half a mile south of bridge, late evening.

Bannockburn (private property)

One platypus repeatedly seen in deep pool, in Moorabool late evening. On one occasion two were playing together in this pool.

Inverleigh

1. Platypus seen repeatedly in Leigh River about one mile north (towards railway line) from junction of Leigh and Barwon Rivers.

2. Platypus repeatedly seen, usually late evening in Leigh about one hundred yards from junction of Leigh and Barwon.

3. Platypus seen early afternoon in Barwon River, about one hundred yards from junction with Leigh - trod water, and occasionally dived - too far away for photographs.

Last week (18/5/65) I mentioned the census to the owner of the property at Bannockburn, where we had seen platypuses. He stated they are definitely increasing, and could be seen along Moorabool, "about quarter of a mile apart" where apparently they keep to a certain area.

Footnote: It is intended to summarise the information to hand on the Platypus census around Geelong in the next issue of "Geelong Naturalist".

In this issue of "Geelong Naturalist", the Junior Page has been brought into the magazine and forms a permanent part of it. Let me know, Juniors, if you think this is a good idea or not.

We have two contributions to the Junior Page in this issue, the first coming from Jillian McCarthy, aged 11, who has written an interesting little article about the butterfly.

THE WANDERER BUTTERFLY

As I was walking around the garden one day, I noticed a caterpillar on our swan plant. I picked the branch the catterpillar was resting on and took it to my father. He said it was the Wanderer Butterfly caterpillar. We had a look on the other swan plants and found five more, so, we put them into a box with plenty of swan plant leaves.

About a week later we discovered that a caterpillar had changed to a chrysalis of green with gold specks. Most of the other caterpillars turned into cocoon within the next week. Two weeks later we could see the wings of the butterfly inside the chrysalis and by this time we were very anxious to see the butterfly. At last the beautiful Wanderer Butterfly had emerged and after its wings dried it flew away.

*****

Another interesting story has come from Robyn Errey.

A GRASS TREE AND ITS RESIN

One Sunday early in July my family went for a drive down to Anglesea. My two brothers and I went further into the bush and we found a burnt grass tree, with a trunk sixteen inches across.

We broke the trunk in pieces to take home to put on the fire. It burns easily with a very distinctive smell.

When my brother was scraping the dirt out of the centre he found large pieces of hard resin or gum. Some resin had oozed out and formed hard smooth lumps the size of plums. Inside they looked like dark red honeycomb.

*****

It is very encouraging to get articles from junior members. Come ON! Juniors and see what you can do for the next magazine.

"Birds of Australia" a beautifully coloured book will be awarded to the best two projects. Members of the B.O.C. were responsible for many of the excellent photographs in this book.

DETAILS ...

The project can be about bird, animal or plant life of the Geelong area, or anything pertaining to Natural History in the Geelong District.

Projects must be in by the October meeting. All projects will be displayed and judged at the November meeting.

*****

BIRD OBSERVING

One sunny Saturday afternoon, Mr. Chapman (an ardent movie photographer) and I went for a drive along the coast in search of bird life. After travelling about fourteen miles from Geelong we decided to take a bush track in the hope of finding something to film.

Instead of walking in the bush we parked about twelve feet from a small waterhole, and waited patiently in the car.

Within ten minutes some dainty little scrub wrens were twittering right beside us in a ti-tree bush. It wasn't long before they plucked up courage and took a bath in the pool. Very slowly we wound down our windows and rested our cameras carefully on the window ledge. With telephoto lenses we had the task well in hand.

The birds were at first startled by the whir of our camera motors but after a few minutes they were no longer camera shy and were back again for their beauty bath.

Our next visitor was a yellow winged honeyeater, but, after one look at the weird creatures in the car he sped off like an express train. However, curiousity got the better of him and he came back with the rest of the family to see us. It wasn't long before they were enjoying their Saturday afternoon shampoo. "Whir whir" went our cameras and the honeyeater family were on film.

Both of us had come to the end of our films and were just starting to unload when we noticed a strange brownish colored bird, a little larger than a thrush, come running along in short jerky movements. Its tail was similar in shape to a fantail's and it was often erect.

This interesting little fellow came almost up to our windows and then proceeded to circumnavigate the pool. What was it? Yes! It was the Rufous Bristle-bird. Now both of us were fumbling with our cameras trying to get them loaded as quickly as possible. With a frantic attempt I just managed to get a few frames on him on the film.

During the next week Mr. Chapman managed to get some excellent movie shots of him, but, whenever I arrived on the scene he decided to seek cover. The next Saturday we went out to the pool again and put a large twig in the water hole so that the birds would have a perch and we would be able to focus them clearly. An eastern spinebill was the next to have his portrait taken and some other members of the honeyeater family joined in. Where was our friend "Rufous"? We waited patiently until light was unsuitable for photography but he had turned us down.

On Monday, June 28th, I went out again at 4 p.m., and well you wouldn't believe it, but there he was again "Rufous" our old friend. This time the light was excellent and "Mr. Rufous Bristle Bird" was on camera.

Next time you go to the bush stop at the edge of a clearing near a small water hole (on a sunny afternoon) and wait patiently in the car or in a "hide"; you will be amazed how many feathered friends you will see.

Perhaps some of you may be able to find out more about the bristle bird family.

By I. Woodland

BIRD BATH

Some junior members might be interested in building a bird bath. Watch out for details in the next magazine.

Please send articles to Mr. I. Woodland, 33 Grant Street, Newtown, Geelong.

*****

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The G.F.N.C. meets on the first Tuesday in each month, at 8 p.m. at the Reformed Presbyterian Church Hall, Fenwick Street, Geelong. Visitors welcome.

All papers submitted for publication in this journal should be sent to the Hon. Editor,

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14 JUN 1966

GEELONG NATURALIST

GEELONG FIELD NATURALISTS CLUB

JOURNAL OF THE GEELONG FIELD NATURALISTS CLUB

PLATYPUS UNDERWATER

HON. EDITOR: TREVOR PESCOTT

Registered at G.P.O., Melbourne, for transmission by post as a periodical

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

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Membership of the G.F.N.C. is open to any person interested in Natural History. The "Geelong Naturalist" is distributed free to all members, and the Club's reference and lending library is available.

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COVER PHOTOGRAPH

Platypus feeding underwater.
Photograph by G. Lewis.

NATIONAL MUSEUM OF VICTORIA
1 JUN 1966

GEELONG NATURALIST

EDITORIAL

Vol.2. No.3. November 1965.

Over the last six months, this journal "Geelong Naturalist" has reached and passed a crisis which threatened its present form. It seemed, after printing the last issue, that there was no alternative but to reduce the number of pages so that we could present future issues on time. We had a drastic shortage of copy, and it was only after repeated pleas that more material began to arrive with the Editor. Now, we are assured of maintaining the present format at least until the end of this current volume. It is with gratitude that the Publishing Committee and the Editor acknowledge the response to our requests for articles.

We look forward to future issues, those in next year and beyond; it is only by the continued support of all members that we can gain enough material to fill the pages.

Perhaps if we review the purpose of the journal, we can see what we are trying to achieve. The name "Geelong Naturalist" incorporates the two vital points that we are trying to present; we wish to give naturalists in Geelong a medium through which they can share their knowledge and experiences of places far away from us, places that many of us will never visit. We hope, too, that articles will be written about nature subjects found locally - for we have a wonderfully rich district for the naturalist. Habitats vary from coastal to mountainous, from plains to lakes - almost every possible type of country with its associated wildlife can be found within 30 or 40 miles of the city. And yet virtually nothing has been published in systematic form analysing our wildlife features.

We hope that this gap will be filled, that each and every branch of natural history which is being explored by local naturalists will be evaluated through the pages of "Geelong Naturalist".

TREVOR PESCOTT
Hon. Editor.

THE SPREAD AND CONTROL OF SOUTH AFRICAN BONE-SEED

By J. R. Wheeler

Since the days of early settlement, Australia has had to face many problems with the introduction of exotic plants.

Over enthusiastic settlers brought many with them whilst others were introduced accidentally.

The 'Scotch-thistle' came to us in the early fifties, being planted by a Scottish settler. Another enthusiastic Scot, spread its seed along the countryside when travelling between Launceston and Hobart by horse coach.

The 'Bathurst Burr' was said to have come here by seeds attached to the legs of imported ponies from Chile.

The curse of the 'Prickly Pear' is well known, as is also that of 'Paterson's Curse', both of which have cost pasturalists millions of pounds over the years.

South Africa has given us many of these pests, the 'Box-thorn', the 'Cape-weed', the 'Lantana' and 'Water Hyacinth'. Another South African plant that came to us in the early days, was the 'Bone-seed' or 'Jungle-weed', (Chrysanthemoides monilifera); it was first cultivated in the Melbourne Botanic Gardens in 1858. From there it was said to have been propagated in many districts, particularly around coastal areas. It became well established on the Mornington Peninsula and the Bellarine Peninsula and as far along the coast to Lorne. Inland, it was little known until 1909, when it was established on the Mt. Lofty Ranges in South Australia. There, it is now a great scurge and has taken over hundreds of acres.

In some districts, it is looked upon as useful for its check on erosion whilst others find it useful for windbreaks and during the spring ornamental for its colourful yellow flowering.

It was about 1950, for reasons somewhat obscure, an explosion must have taken place, as at that time it spread very rapidly in some districts, particularly on the Mornington Peninsula and at the You Yangs, 12 miles north of Geelong. Considerable areas were soon over-run, so much so that native plants were choked out of existence and many trees died.

At the You Yangs, practically all western slopes of Flinders Peak is now choked with dense growth to 4 and 5 feet high and in many other areas, rapid spread is taking place, particularly in the scenic 'Forest Park', an area of 1,200 acres.

The threat of 'Bone-seed', was brought under the notice of the You Yangs Forest Park Committee of Management in 1963 and an investigation with members of the Noxious Weed Officers of the Lands Department was carried out, so that some method of control could be devised.

The possibility of the pest being declared a noxious weed was discussed, but was ruled out by the fact that it was no threat to any pastoral land and had no effect on primary production.

The cost of eradicating by the aid of poison sprays, would be in the vicinity of £30,000; no money was available for this type of work.

The Committee decided to adopt the following policy with regard to present control:-

a) To step up tree-planting in areas where Bone-weed was a threat.

b) To establish experimental plots to study growth and control.

c) Control and eradication methods to be studied by the Forests Commission.

d) Naturalist and other interested bodies to take part in a 'pulling' campaign within the Forest Park.

Since then, 5,000 native trees and shrubs have been planted in a joint effort by members of the Bird Observers Club, Geelong Field Naturalists Club, Girl Guides and some Scouts. Where planting has taken place, the areas were first cleared of Bone-seed and in the future regular visits by naturalists will assure that any infestation of Bone-seed will be kept in check.

Two experimental plots have been established. One plot established by the Forests Commission has already carried out experiments with sprays, but it is too early at this stage to form any conclusion to same.

The pulling of juvenile plants within the Forest Park has been most successful and already some areas where infestation was spreading rapidly, eradication has been completed. A census taken by one B.O.C. group pulled 9,600 plants in two hours between the picnic ground and Big Rock.

Some Girl Guides under naturalist leaders have also taken part in the pulling campaign. It is essential that pulling be continued so that re-seeding can be controlled. During the winter and spring when the soil is moist, pulling is much easier as it has been found that Bone-seed generally, is a shallow rooted plant.

Correspondence with South Africa, where Bone-seed is native, reveals that the plant is widely distributed along the east coast and as far inland as Drakensberg. There it is one of the dominants of the shore dune-scrub from Port Elizabeth northwards to Kosi Bay. There, it is not aggressive except where it is in dune-scrub, but is nowhere abundant.

Despite its very heavy seeding, the main method of control biologically, appears to be the Red-winged Starling which feeds on its fruits readily. It is thought also that there is some insect control, but no research into this aspect has yet been carried out. Stock feed on Bone-seed where-ever it is available in South Africa and here in Australia, sheep will eat it when very young. Rabbits also will feed on juvenile plants.

In America, the seeds of Bone-seed has been found to contain a valuable drying oil which can be used in paints.

Naturalists in this country are reminded to becomeacquainted with Bone-seed, in order that they can identify it and watch out for its introduction into other reserves and particularly national parks.

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THE LOCH NESS MONSTER

By L. W. Elms

Do you believe there is a Monster in Loch Ness?

This has been a much debated question since its first reported sighting by Saint Columba, about the year 570.

My wife and I visited this very scenic lake on July 9th, 1963, and looked unsuccessfully for the monster. Unfortunately we left a couple of hours too early, because it was watched that afternoon by four builders who were working on a lakeside house. They watched it for some time and estimated it to be about 20 feet long, and rising about 8 feet out of the water.

Actually many accredited people have seen it, many have sketched it, and others have photographed it. In June 1961, Mr. Tim Dinsdale took a movie film of it for four minutes, when it was about 3/4 mile away. This film was shown on television. During the filming, the monster swam about 3/4 of a mile.

In October 1936 a party of five women watched it for fourteen minutes and estimated its length at about 30 feet. They noticed its three humps, a long slender neck, and a small head. While they watched, it turned and swam swiftly across the lake, putting up a tremendous wash in front of it.

In the main, there is a striking similarity in descriptions given by eye-witnesses, who all refer to its length, its humps, the long neck, and the high speed it travels, causing a considerable wash. The B.B.C. sent a team of divers to explore the Loch, but they reported that they didn't ever want to go diving there again, as it was so dark and lifeless.

Loch Ness is about 24 miles long and a mile wide, and is said to be up to 900 feet in depth. It communicates with the sea by a canal, on which several locks have been built. It contains fresh water, but this does not necessarily preclude a sea animal living there, for sharks, manatee and porpoises are to be found a thousand miles up the Amazon, and sharks inhabit a fresh-water lake in Nicaragua.

THE LOCH NESS MONSTER

A party of school children once reported seeing the creature out of the water. When shown a number of pictures, they pointed to a picture of a plesiosaur as being most like the creature they had seen. Plesiosaurs are a type of lizard supposed to have been extinct for about seventy million years, but this does not rule out the possibility of the Loch Ness Monster being a plesiosaur. A fish with hollow backbones, called the coelacanth was supposed to have been extinct for fifty million years, and yet one was caught in 1938 in South Africa, and another in 1953 in Mozambique. Both were positively identified.

Dr. Burton, Director of Zoology at the British Museum, after studying many photographs, stated that:- "The beast was something like a plesiosaur. If a few plesiosaurs have survived from the Age of Reptiles - and living fossils are by no means unknown - a likely home for them is in Loch Ness."

You might well ask - "What has all this got to do with Australian Field Naturalists?" Plenty!
It was in 1797 that our early settlers found the first known platypus in the Hawkesbury River, N.S.W. When specimens were sent back to the London Museum, they were acclaimed as the best faked animals they had ever seen - the zoologists just did not believe them! In similar manner our echidnas were eventually accepted incredulously. In many respects, Australia, with its unique mammal fauna, was "The Lost World" come true. For 87 years a wordy battle was waged on the subject, until in 1884, Dr. W. H. Caldwell determined once and for all that the platypus actually did lay eggs.

We have no "Loch Ness Monsters" in Geelong district, but we do have a few platypus and echidnas, and as they are protected animals, it behoves us to do our utmost to see that they are given every opportunity to continue in existence, and even to increase in numbers. In 1933 the Secretary of State for Scotland said that far too many people have seen something abnormal in Loch Ness to question its existence, and he had a parliamentary Bill prepared for the monster's protection. There is no mystery now about the rare and unique animals we have with us here in Australia, so let us be more diligent than ever in preserving them in a healthy state in natural surroundings for the benefit of posterity.

MAGGIE WHEN IN THE MOOD

MAGGIE WHEN NOT IN THE MOOD

PHOTOS FROM G. LAYLAND

TWO MAGPIES

By George Layland

Often when we are out on our excursions, particularly when some of the members refer to magpies, I am inclined to think of my early school days and in view of our Editor's concern for the future of this Magazine, due to insufficient support in the way of material (articles, stories, etc.) I am prompted to try my hand at it again.

This story, which I will endeavour to relate for the benefit of the Club, naturally goes back to early in the present century at Canterbury, an Eastern suburb of Melbourne, my birthplace, and now very different with all the vast open spaces gone.

Our home was on the South side of the railway station, half way up the hill, opposite the Howards' home, where two brothers and four sisters (also single) lived all their lives with their invalid mother, to whom they were devoted. Including my brothers and sisters, I must confess we were always in fear of visiting them, even for mulberry leaves for our hungry silk worms, on account of their magpie always being at large in their big garden, and ready to draw blood from our bare legs and which usually brought a "holla" from the victim.

So much for this feathered watch dog as it surely was, but little did we realize that we were soon to have one of our own, though more interesting.

It seems that my father often read the "Wanted to Sell" column in the morning paper and noticed one day "A Talking Magpie for Sale" at an address in Footscray for twenty-five shillings, a lot of money in those days, of course there was little protection, if any, for birds and animals by law. We children were already well catered for by our father in the way of wild life, and otherwise, in the spacious surrounds of the home (now built on) and which I suppose I could write quite a lot about, but will strictly confine this story to these two magpies.

It was quite a drive by horse and buggy in those days, but my father returned home safely with his "Bird" together with a long list of what it could say - taught by an old lady who surely must have been gifted with a lot of patience.

Father told us he had heard all that the magpie had to say and was very happy with the deal, but for years after people were amazed to

learn of the price he paid for it. He always replied that the bird was well worth it and more, to which I heartily agree as I look back over the years and I am very sorry for the people who were obliged to part with it. Needless to say we children were dumbfounded and doubted our father of its capabilities in this respect, summing it up as just another Howard magpie to beware of.

However, it was not very long before "Maggie" which we called it (I don't know to this day if it was a male or female bird) settled down to her new home, and was allowed to roam around the grounds at will like the one over the road, attacking visiting playmates, dogs and cats (even ourselves for quite a long time) and never forgetting to reprimand with that famous tongue of hers. Maggie, unfortunately had a crooked leg probably broken at one time when young, but could go some despite this defect. As for being a talker Maggie, in my opinion, was the best ever and seldom tiring at it.

I well recollect my father building her a ladder up under a tree by the fence, where people hurried by on their way to the trains - and wasn't it a success. Maggie spent a lot of her time up high watching and telling people to "Hurry up" "Hurry up" "My word I'll warm you when you come home". This used to arouse much dismay and amusement to newcomers, while others became accustomed to her.

How I now wish I could remember all that was on that list. Besides that of laughing and barking some of her highlights were:- "Where's Albert?" "Gone to School", "Who are you? Who are you? Be off. Be off". Often she would say to anyone approaching her in the garden even to a cat or dog, "Be off, Be off, or I'll cut your jolly head off" - always I might add as distinctly and clearly as a human being.

Maggie became very popular and well known round about there, and lived for many years at the old home, often posing for snapshots with members of the family and friends taken by my father. I would like to have known which lived the longest, the Howard magpie which could only draw blood, or the Layland magpie which could tongue wag and also draw blood.

It was when I had left home for a position in Geelong that I received a letter from my father one day, telling me that Maggie had been killed. It was surmised she had been caught off her guard, and struck from behind by a wild stray cat taking her head completely off. (To think she should lose her own jolly head in this manner?) He said had it not been for the missing head he would have had her stuffed. I still have the small wing feather which was enclosed in my father's letter to me.

And so you see my second story in the "Geelong Naturalist" again ends in tragedy.

QUEENS PARK AND BUCKLEY FALLS

By H. B. Pescott

A quiet Sunday afternoon spent in the vicinity of Queens Park and Buckley Falls recently brought back these memories.

On the way to Buckley Falls, down the hill from the old Fernery Hotel (corner of Aphrasia Street and Shannon Avenue) with its Fern Gardens and many-storied timber look-out, one would have to pass the old pear tree (which may be there still), sole survivor of the orchard opposite to what was known as Whites' Stables; lower, there was the Hawthorne Hedge which invariably shielded a Goldfinches nest, and then to the river flat and across the timber Bridge, with its upstream metal bow to divert flood water. Through the Park was a track just inside the south fence boundary; here the Bee Hive Tree which produced at least one swollen face, the Canoe tree a little further on, and to the north Buckleys Arm Chair, were always attractions. We were told that that is where Buckley "White Black Man" often rested with his Aborigine friends; this formation on the north side of the now deviation road has the appearance of a large arm chair. Further on we went to the island in the centre of the river, a short distance before the Barwon River is joined by the Moorabool River. We would have to wade or rock-walk out to the island, and here many hours were spent fishing without catching any fish, time wasting really, but pleasantly; then boiling the river water for lunch. The island was mostly rock or sand, tea trees, and river reeds, but was an ideal spot to have a central camp for the "explorers".

"The Falls" as we knew them were man-made and started about a mile or more further up stream towards Ceres. There was an old Flour Mill and water wheel on the south bank of the rocky river; the wheel was never in action in our time but around it was an overgrowth of pennyroyal, nettles, grass and of course a weeping willow. A short distance beyond this was the weir which was built across the river, a rock bank built to divert the water to a race which commenced there, and continued for about a mile, cut into the north side of the river bank. Stone and concrete lined, it was deeper as it flowed, until it reached the rubble stone tower of the Paper Mill where it was directed to flow as required for driving machinery; the used water fell in the lower tower to the river level. When not required the water was banked off in the spillway and formed what was known then as The Falls.

During the times of heavy rains and flooding, it was a grand sight to see, and its roar could be heard a mile off. There have been times when the flood was so heavy that Queens Park had been flooded also, and the approaches to the Queens Bridge either side under water.

Thinking back of Buckley Falls, the whole area there had a charm which could not be recaptured. The stones and trees look different now, and where one person could be seen therein those days, dozens appear now.

Birdlife and trees are all depleted now, and more picnic amenities replace them (to my thinking, these lunch tables are a blot - can we not have more attractive structures).

Further south from the "Falls" was the Basin, and many hours - into days - were spent fishing, rambling and bathing. One surprise was elvers "climbing" up the rocks - hundreds of them, so many that a handful could be caught with ease (but not held for long). Swallows built in the cliffs, "Honeyeaters" which I now know are Reed Warblers, Magpies and other birds were always present. I remember vividly one nest hanging on the tip of a branch, containing several small eggs and one big one - guess what? Lizards, mostly blue tonques could be seen almost anywhere, and a snake killed when asleep opened to reveal a whole sparrow.

These are some of the impressions that remain of Queens Park, a natural playground - sometimes washed out, once burnt out, and now a sophisticated Golf Course.

All these newer facilities cannot submerge the beauty of the border of Flowering Gums, Morton Bay Figs, varieties of Pinus and many others; and one in particular - the Fire Wheel Tree near the old entrance gate at the west side of the Bridge.

Then there was the long hill climb homewards, no horse-bus about, later no tram - so it was rest awhile, and walk the mile home.

MOUNT COLE, BEAUFORT

By Adrian Davey

During September, while staying with a friend between Skipton and Beaufort, I was fortunate enough to visit Mt. Cole State Forest, which is formed from a group of granitic mountains some eight miles North West of Beaufort. The range rises out of a flat basalt plain, but near the foothills there are extensive patches of ordovician slates, in which the gold seekers dug in the eighteen sixties. The mount itself is granite.

Our host for the day was Mr. R. Hodges, the local Forestry Officer, who, incidently, was originally the Forester at the You Yangs.

Having driven past sheep runs and mine dumps we drove up fire access tracks to a place locally known as the 'Glut', for lunch.

The forest consisted of messmate, peppermint, manna gum, and blue gum, and the undergrowth of bracken, grevillea, correa, and many acacia. During our walks we found specimens of tetratheca, Leucopogon virgatus - (common beard heath) and among many others, one specimen of Pteristylus longifolia.

Having boiled the billy and grilled the steaks, we embarked on a naturally illustrated talk on forestry, which proved to be the best introduction I have yet had on Victorian forest trees.

When we had refreshed ourselves again, we proceeded into an area of forest which is Victoria's best for long poles. The road ran up the side of a never to be - logged area, in a gully in which grew treeferns, and down which a rushing stream coursed.

All the trees in the area were either eucalyptus or blackwoods, most of the former attaining well over one hundred feet in height. At the time the forest commission had an order for ten, one hundred foot logs, each worth one pound a foot on the roadside!

The rainfall in the area is high, and in the creekbed the Forester had planted several mountain ash, - we saw four-year-old Euc. regnans, up to eight feet taller than messmate of the same age.

A really wonderful forest, with interest for the botanist, geologist, and ornithologist, and to think that only ten miles from these steep gullies and towering trees is a flat basalt plain with barely a tree in sight save an old and gnarled blackwood.

"100 QUESTIONS ABOUT SPARROWS"

In the Journal published by the School Natural Science Society (London) in June last year, and kindly loaned to the Editor by Miss Martin, questions about the lowly Sparrow was listed. It showed just how much we can learn of birds by recording the common, every-day events we see, even about such common creatures as the Sparrow or Starling. There are still enormous gaps in our knowledge of most, if not all, creatures - although some gaps have been bridged by extensive research. Some of the questions listed in the journal are as follows:-

1. Can sparrows catch insects on the wing? (Watch in the early evening, when moths, etc., come out.)
2. Will they go into a place with only one escape route, for food?
3. Do sparrows turn over leaves or stones to find food?
   (a) Naturally? (b) When you have hidden food there?
4. Do sparrows eat insects, worms, spiders, woodlice, etc.?
5. Do sparrows have a special sound to signal to the others that food is about?
6. Are the bills the same colour all year?
7. Is the male "bib" the same all the year? And the rest of the plumage? Can you tell when they have recently moulted and renewed the plumage?
8. During which months are young ones reared?
9. Do both sexes collect nesting material?
10. (a) Do you know the pose of fledglings soliciting food?
    (b) Will birds, other than their parents, feed them?
    (c) Will they feed a model of an open mouth?
11. (a) Do they come out during rain? (b) Heavy rain?
    (c) Can you explain this?
12. How many birds do you commonly see together? Do you ever see one or two alone?
13. Does a whole flock arrive together or do they send scouts ahead?
14. What will alarm a flock? Can you see the cause of every alarm?
15. (a) What exactly are the movements they make in a dust bath?
    (b) Do they have special scouts, warning of danger, when dust-bathing?
16. Where are dust baths taken in your area? Do they ever take dust baths alone (i.e. not in flocks)?

Although the questions are on sparrows and directed primarily at school-children, many similar questions arise about our native birds and can be answered only by careful observations by adults and juniors alike.

These observations should be published in a journal such as our own, so that they can be shared with other observers. Too much valuable information has been lost already, simply because the observers do not think the observations are of sufficient value to be recorded permanently.

MAGPIE NOTES

By Joyce Hunt

The doings of our magpies are a never-ending source of interest. The two pairs who have lived here for many years always select their building sites at opposite sides of the house.

On windy days their aeriel games are a joy to watch: they select a high position on a group of pine trees, where one sits while the others take it in turns to dive-bomb him. After several minutes of this the "target" changes places with another bird, and so the game goes on. The stronger the wind, the greater the fun. We have counted up to seven magpies playing this game together, so assume that the sports are a combined effort for both families.

Two years ago the writer watched a magpie constructing her nest; she collected a large quantity of sticks of varying sizes, and laid them handy in a fork of a tree in which she had decided to build. In this way she was evidently able to select just the size she needed at each stage of building. It was amusing to watch her carrying a piece of stick more than twice her own length, and interesting to see how she tested it out for perfect balance in her beak before becoming air-borne.

One year we had difficulty in discovering the nesting site, but located it by finding a piece of tell-tale wire on the ground. Possibly it was not suitable, so she discarded it; the nest was immediately above this length of fencing wire.

Another time we had occasion to remove a pine, but discovered that Mrs. M. had started her nest therein; so the tree had to stay until the young ones were able to fend for themselves. Examining the nest later, it was found to be composed mainly of wire - twenty to thirty pieces of various lengths - probably up to twelve feet altogether in length.

With magpies it seems to be a case of "What's yours is mine; What's mine is my own". On several occasions the writer has left a bowl of kitchen scraps on the machinery bench, intending it to be added to the dogs' rations. If it is not securely covered most of it will disappear before the dogs get their dinner. Not just food, either. This year (July-August 1965) Mother Magpie first signified her intention of building by carrying lengths of super-bag string and baler-twine which she had pinched out of the shed. These she proceeded to hang in loops in a very obvious position, too obvious to miss. However, she decided to move, and started building in the next pine towards the South. Here she drew attention to the fact by including a length of super-bag string with the super label still attached! This label was left hanging for a day or two, then

it disappeared - into the nest, probably, and its place was taken by a good big handful of cotton-waste - the stuff mechanics use to clean the grease off their hands. Did she take the cotton waste that was in current use and lying on the bench? Oh, no!! Nothing but the best for Mrs. Magpie; somehow or other she had discovered that there was a sugar bag full of new clean waste on top of a cupboard in the shed, and helped herself to a supply of this. It will probably disappear from its present handing position in a day or so as she no doubt intends to use it as cosy wall-to-wall carpets in her new house.

Twice in recent years a magpie's nest has come to grief in the equinoctial gales, but this one seems to be well situated, so we are hoping that she will succeed in raising a family in the coming Spring.

*****

BIRDS AROUND A QUEENSLAND GARDEN

By Billy Gill *

When we settled here six years ago, our side of the road was bare, no trees and no houses for at least a quarter of a mile, whilst opposite our home was a dense patch of rain-forest, the tall trees and twining vines being the home of such birds as the Noisy Pitta, Cassowary, Wompoo, Purple-crowned and Red-crowned Pigeons, White-tailed Kingfisher and hosts of others. Today this has all changed, houses have sprung up along our road and our lovely patch of rain-forest bulldozed back at least a quarter of a mile, almost beyond our view. In place of the tall trees and vines are now buildings and lawns, where three crippled Masked Plover have taken up residence.

Despite the loss of our rain-forest, we have endeavoured to build up our garden with trees and shrubs and our reward has been an amazing number of birds, many of which have become trusted companions and breed regularly in our midst.

Young citrus trees, one of which has permitted a passion vine to run riot, provide excellent cover for the Red-browed Finches and Silvereyes both of which breed there together with Indian Turtle Doves. We have one gum tree in our garden, possibly the only one in our area, and it provides great attraction for Rainbow Lorikeets, Rufous and Grey Fantails. Last season, a cheeky Helmeted Friar Bird, happily stole its dry twigs for its nest. The ripe berries of the 'Ochna Bush' brings many Olive-backed and Yellow Orioles into our midst and I have counted as many as eight in the bush at the one time.

Delightful and trusting Yellow-breasted Sunbirds, are now our permanent companions and each nesting season will attach their unusual nests to all sorts of hanging appendages.

Ripening Paw Paw's have great attraction for honey-eaters and on occasions, two strangers to our district, the Victorian Rifle-bird and the Spotted Cat-bird have been seen feeding there.

Each spring, Graceful Honey-eaters find numerous plump spiders under the eaves of our home.

Twice daily, with great regularity, a party of Buff-breasted Warblers explore our garden for insects. Others to visit daily are Varied Trillers and Lesser Lewin Honey-eaters.

Our bird-table, is somewhat disappointing, in that it is mostly made use of by introduced species such as Spice Finches and Indian Turtle Doves but there are occasions when Chestnut-breasted Finches, Yellow-breasted Sunbirds and Green-winged Pigeons also feed there.

The bird-bath is much more popular with the Willie Wagtails, Magpie Larks, Drongo's, Yellow and Graceful Honey-eaters.

Less frequent visits are made by delicate Lovely Wrens, Azure Kingfishers, Reed Warblers, Fairy and Tree Martins, Rufous and Grey Fantails, and of the Flycatchers, Spectacled, Pied, Leaden, and White-eared.

Our wireless aerial has proved a boon to many of the perchers. Here we have seen many and include Rainbow-birds, White-breasted Wood-swallows, Cuckoo-shrikes (Black-faced and White-breasted), and several of the Cuckoo family (Brush, Horsefield-bronze, Rufous-breasted, Little), whilst the tall bamboo pole supporting the aerial has been a perch for the Black-shouldered Kite, Kestrel, Brown Hawk and Dollar Bird. On one occasion we found a dead Boobook Owl at its base.

On one side of us we have what we call the 'rubbish patch'. It has become very dear to us, being the habitat of numerous Brown and Red-backed Quail, both of which breed there; Finches, Cisticola's and Tawny Grass-birds all live there and occasionally we see the shy Banded Landrail darting to and fro.

On the other hand there are birds that never visit our garden but are to be seen flying overhead. Mostly, they are the birds of prey, searching the road for road victims of which the innocent

bandicoot appears to be the most unfortunate of these; Whisting Eagles, Black Kites and the occasional Crested Hawk all patrol the road.

Each night we have regular visits by the Large-tailed Nightjar; it makes its first appearance at dusk to hawk night flying insects. Later it will perch on a nearby fence post and continue its strange 'knock knock' call for hours on end.

One recent, not so popular sighting in our garden, was that of three House Sparrows, birds that are slowly but surely increasing their range northwards and it will only be a matter of time before they will arrive in their flocks as they have in so many other parts of eastern Australia.

Our most treasured visits, are those of a pair of Bush-hens seen running along inside our fence and the occasion when we found a lone male Red-winged parrot in our garden.

Yes, our garden is not only a garden of much activity but a garden of many memories.

* Mrs. Billy Gill, Innisfail, Nth. Queensland.

*****

PLATYPUS CENSUS
An interim report
By Trevor Pescott

Locally

This report is not intended to bring the census of the Platypus population in the Geelong district to a close - rather it is hoped that it will keep the subject very much alive. We know too little of many of our unique native creatures, and much can be learned by the compiling of seemingly unrelated observations.

Since this Census was first suggested, we have had published a number of observations which give the impression that the Platypus is far from vanishing from our local river system. With this thought in mind, I asked the local Fisheries and Wildlife Department Officer, Mr. D. Puffett, if he had encountered the animal often in the pursuance of his duties. It is his belief that the Platypus is slowly increasing in numbers, and that its status here is reasonably safe.

PLATYPUS CENSUS

In one of the previous reports, it was stated that a Platypus was found wandering up an open channel in Newtown; this wander-lust is apparently a characteristic of the juvenile animals, for they appear at the most unexpected places by following these smaller channels and drains away from the main river. The young leave the nest burrow in January or February, and it is about this time of the year that most of the unexpected observations are made.

The use of the lower reaches of the Barwon River by speed boat enthusiasts will probably cause the complete disappearance of the animal from this area, but in the quieter, more secluded places the Platypus seems assured of survival.

Historically

The first Platypus known to science was collected at the Hawkesbury River in New South Wales in 1797, and was described by Dr. George Shaw, who was at that time mammalogist at the British Museum; so amazed was he at this remarkable creature, that he did not publish immediately his findings, but withheld them as he checked the specimen time and again. He was used to the Oriental "Monkey-fish", specimens formed by the careful stitching together of half a fish and half a monkey. He believed the Platypus to be a similar fake, but could find no sewn seams, and no known bird or animal had features exactly the same as those of the Platypus. At this stage Dr. Shaw had only a dried specimen to work on, and he could not believe that this creature could be real.

A few years later, whole specimens preserved in spirits were sent to Europe, and here scientists were really confronted with a problem - this animal could not produce live young, its reproductive organs showed this. Instead, it must lay eggs. Impossible! For over 80 years, wordy battles raged, and it was not until 1884 that it was finally proven that the Platypus did actually lay eggs, and that the young which hatch are suckled. One other interesting point is that the mother does not have teats, instead the milk oozes through special skin pores and the youngster laps it from there.

It was not until 1922 that live Platypuses were seen outside Australia; in that year, a live specimen reached the New York Zoological Gardens. It remained alive in America for just 49 days.

Breeding

The Platypus builds a special burrow in which to rear its offspring; the length of the burrow varies, and Fleay found the breeding burrows on the Barwon River near Winchelsea to vary from 15 to 40 feet long. They are constructed in the early spring, in either September or October. Two soft shelled eggs are laid, these being only about half an inch in diameter; incubation is for only about 10 days, and the infant when it hatches looks like a tiny pink grub. It is sightless for about 11 weeks and, in all, stays in the nest for some four months; it is not until it has been out of the nest for three weeks that it is finally weaned.

At the time of suckling its young, the female eats with a huge appetite - a female weighing 2 pounds may eat as much as 1.3/4 lb. of food nightly.

The first successful breeding of the Platypus in captivity came about by the wonderful care and knowledge of Mr. David Fleay, who was at that time in charge of the Healesville Sanctuary. It was in the spring of 1943 that the captive Platypuses settled into their specially constructed "Platypussary"; it was not until the early months of 1944 that the youngster made its appearance into the main swimming area, confirming beyond any doubt that a successful breeding had occurred.

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A TRIP TO JULIA PERCY ISLAND

By John W. Meehan

From afar off "Julia" looks like one of Antarctica's tabular icebergs - long, seemingly low in the water, and to make the illusion complete, only partially visible because of atmospheric haze. Actually the island is volcanic in nature, being composed of some five different lava flows. Its sheer cliffs drop into the sea most of the way around; there are only a few bays and only one landing place - Dinghy Cove.

"Julia" is reached after a two hour journey by boat, a forty footer, from Port Fairy, Victoria. After about an hour and a half the pitching and rolling was no longer a novelty and several people headed for the rail. I might have been one of the first to feel sea sick, but for personal satisfaction I waited until a few others were at the rail and then quickly joined them. Seasickness must be experienced !

Once off Dinghy Cove the personnel and equipment were transferred to a whaler and rowed ashore. It took ten trips to land us, but due to the expert seamanship of Mr. Tyson, all the gear was landed safely. The method of landing was to row the whaler within a few feet of the shore, wait for a wave, pull hard on the oars and ride the wave high up on to the beach. "Beach" is a courtesy term when applied to Dinghy Cove, as there is not a speck of sand, only large size shingle. Once landed, we were completely cut off from civilization until the boat came back; we could see the mainland but the isolation was complete - no one even had a transistor radio.

The first necessity was to set up camp. This involved carrying all the equipment up the 110 ft. cliffs to the top of the island. Once on top the place loses its appeal - the island is about one and a half miles long by three quarters of a mile wide and is nearly as flat as a football field. There are a few rocky patches but the ground is mostly covered with bracken, thistles or pig-face. Actually 84 species of plant are recorded for the island, but to the casual observer the above list suffices.

To find a suitable camp site is not quite as easy as it sounds - the island is the breeding place for hundreds of thousands of Short-tailed Shearwaters (mutton birds), many Fairy Penquins and

numerous rabbits; all of which breed in burrows. Apart from the fact that the burrows cave-in when stood on, the old hand doesn't camp too close to a mutton bird burrow as these birds are very noisy when feeding their mates and young at night.

Everything we needed had to be brought with us; even water - three days supply plus emergency. Some kind of petrol or porta-gas stove was essential as wood is virtually non-existent on the island. Tents had to be nearly repitched each day, as for the whole time we were there the wind didn't stop blowing. Because of this wind, we dug a hole in the ground, about 18 inches deep, to put the stove in so that the flame wouldn't be blown out.

The purpose of the trip was to observe and photograph the nature life that abounds the island. The observation began as we were close off shore - seals could be seen resting on the rocks and swimming about looking for food. Besides having Victoria's, and probably Australia's, largest seal colony, "Julia" is abounded with other forms of life. There are probably a million mutton birds breeding there during the season. Diving Petrels and Fairy Prions are also abundant. Another interesting species is the Fairy Penguin. The Seals are the Australian Sea Bear (Gypsophoca tasmanica) variety. The females are covered with soft brown fur, sometimes golden coloured, but the old bulls are tougher and possess a mane extending right round their chests and down their backs. This fur was the reason the seals were almost placed on the extinct list. During the earlier half of the last century, sealers often lived on the island as much money was to be made in the seal skin trade. Happily the 'sea-bears' have recovered; when sealing was stopped, there was hardly a specimen to be found on the beaches; nowadays the colony on "Julia" numbers between 3,000 and 5,000 fur seals.

The author spent a considerable time trying to tape record the babel of noises emitted by tasmanacus. The first two days' recordings were a failure as the sea provided too much background noise - our ears hear selectively, but the tape recorder takes everything in. On the third day I succeeded in getting about half an hour of good quality 'seal sounds'. The tape is very

interesting; some of the sounds seem like those of the domestic cow, others like sheep; but the bulls have a distinctive bellow and an 'oink, oink, oink ...' sound.

Bird banding was another of the activities of the party. Bird banding, that is, catching the bird, putting a numbered metal ring on its leg, and releasing the bird, was first practised by a Danish school teacher about the turn of the century. The idea has spread and the recovery of these bands has added much to our knowledge of bird migration, birds' life expectancy, the number of times a bird nests per year, the age of the wearer, and numerous other problems. The C.S.I.R.O. has a large number of trained and licenced banders working all over Australia. Some of the mutton birds banded on "Julia" during December 1963 were recovered during 1964 at places as far away as Japan and Siberia.

The technique of banding mutton birds was to don heavy leather gloves, (the birds have beaks) poke one's hand down the nesting burrow and drag the bird out. The band was clamped around the bird's leg and then the bird was replaced in the burrow. It sounds quite simple, but the birds don't think it is a very good idea. After spending a day pulling mutton birds out of their burrows our banders looked rather desperate types - no shave for days and they were covered with the dirt from the rich volcanic soil.

Each night we watched the Fairy Penguins come in on the waves and land on the beach. "Penquin Parade" at Phillip Island, Victoria has made the Penquins' antics popular and well known. But how do the birds land on the McCoy platform? - a flat shelf of rock a few feet above high tide level. It is thought that they come in on a wave and jump from the water on to the rock; after the manner of the Adelie Penquins of the Antarctic. The author doesn't know of any observation of the above method of landing, but it presents an interesting problem for future visitors to the island.

A TRIP TO JULIA PERCY ISLAND

We were taken off at Dinghy Cove early on December 31st - a day late: When we got out into the big seas we knew why the boat hadn't called the day before. Apparently the sea had gone down but when the boat sank into the trough of a wave, the whole horizon was blue water!

(I have made no attempt to give a technical description of the nature life of the island: Apart from being beyond my limited knowledge, such description would encroach on the work of Mr. Trevor Pescott which has been published in the "Victorian Naturalist", Vol. 81, No. 11, March 1965.

J. W. M.)

*****

BAT BANDING IN AUSTRALIA

In the latest publication on the Australian Bat-banding scheme covering the period up to June 1963, many interesting facts are listed. It shows that in the 6 years prior to this date, 24,235 individual animals have been banded, 13,531 being banded in the two years between 1961 and 1963. Of the total, 3,332 have been recovered - that is nearly 1 in 8 as an average; this apparently high figure comes from the large percentage of animals retrapped at the caves where thousands congregate. Catching is relatively easy here, and consequently many thousands can be handled.

Thirteen species of bat have been banded in Australia, but of these I have had less than 100 individuals captured. The remaining four species are the Little Brown Bat (203 banded), the Eastern Horseshoe (549), the Little Bent-wing (1,438) and by far the most prevailent species the Bent-winged Bat which has had 21,768 of the total 24,235 banded.

The longest distance covered by any individual was 212 miles, the animal being banded at North Sydney Railway Tunnel and recovered at Willi-Willi Bat Cave near Kempsey N.S.W.

(Extracts from the "Third and Fourth Annual Reports on Bat Banding in Australia" by R.G. Simpson and E. Hamilton-Smith, published by C.S.I.R.O.)

BRINGING THE DINGHY ASHORE

SEALS AT SEAL BAY

PHOTOS BY JOHN MEEHAN

CLOWNING MAGPIES
By L. E. Sherwood

Like most folks - excepting perhaps those who live in the centre of a city - we have had, since living in the Geelong area, our brace of magpies who lord it over all and sundry in their chosen territory.

Our new home is no exception and my husband carried scars on his head recently, a penalty for not keeping a close enough watch on mother before the young could fly properly.

On greeting the morn recently I had visions of a funeral on our hands for one of the pair of young who are the new arrivals seemed to be very dead complete with legs in the air. As I surveyed the sad scene there was a transformation for brother (or sister) arrived and gave a peck to the tummy of the apparent dead member of the family. He immediately became very alive and retaliated with much activity mainly from kicking legs while still maintaining his posture which was continued even when mother arrived with breakfast. There was a fair amount of this tomfoolery and at one stage legs were so tangled as to seem incapable of being undone again.

After the kicking and pecking session, juniors decided to ape mother. Most people will be familiar with the way a magpie stands and appears to listen and then takes a few short steps and grabs a worm. The young ones got the first part right but in our loamy soil the beak was inserted into the ground too far so that with the momentum from the run they went head-over-heels.

I don't know whether this behaviour is normal for magpies but feel it is, and if so, their clowning can be compared with that of some animals such as baby bears and others.

NOTES ON STONE IMPLEMENTS
By K. V. Dupe

Stone implements of the Aborigine are still to be found around the coast, and inland on the Bellarine Peninsular and other areas.

Not the bigger implements like axeheads and grinding stones which are recognised by almost everyone, but the small well-made beautiful microliths and points. They are made from quartzite, cherts, jasper and other stone.

These small implements are believed to be from one thousand to two thousand years or older.

The geometrical microlith is usually less than an inch in length, triangular shaped and trimmed on the back; mostly these are found only in the southern half of Australia. Some of the shell middens mentioned by Trevor Pescott in Vol. 1, No. 3 still have these implements among the camp debris and may be found by searching with care.

AT RANDOM

CATTLE EGRETS IN THE GEELONG DISTRICT

By Jack Wheeler

During 1964 and 1965, Cattle Egrets (Ardeola ibis), have become established in the Geelong district. Early in July 1964, three birds were found in a paddock adjoining Hovell's Creek at Lara, remaining there for at least three months. Early in August in the same year, 6 birds were regularly seen associating with a mob of cattle at Whittington and remained in that region for three weeks. During October, 1964, one bird was seen at Ocean Grove. Early in June 1965, 22 birds were found in the same paddock at Whittington as that visited by 1964 birds. This flock later built up to 26 birds. Locals advised that at times, at least 50 birds were to be seen but this was not confirmed by reliable observers. At the time of this report, (September 10th) 26 birds were still there and 4 birds have been noticed to be changing to breeding plumage which is a change to mustard brown on the head, neck and back. Two birds have also been seen at Fyansford also attending cattle but one of these later was found dead under a tree. Reports of these birds breeding in this district could be possible within the next few months.

DOVE LANGUAGE

By George Layland

As I awakened the other morning, I realized the persistent and somewhat monotonous sounds were coming from a dove not far from our windows.

How often over the years have I not wondered what these birds were endeavouring to say, but on this particular morning, I seemed to sense what it was all about and promptly jumped out of bed, and began dressing while the supposed voice continued - "You're late! You're late! You're late!"

That evening I told of my experience to one of our new junior members, a little chap between 9 and 10 years of age, whom after listening very intently to me exclaimed in a solemn manner - "Mr. Layland! I did not know you could understand dove language." I really had to smile for I suppose it was on account of my ability to do a few tricks, was the reason for such a reply.

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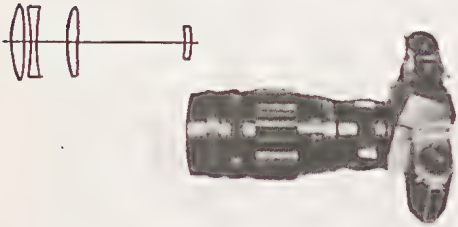

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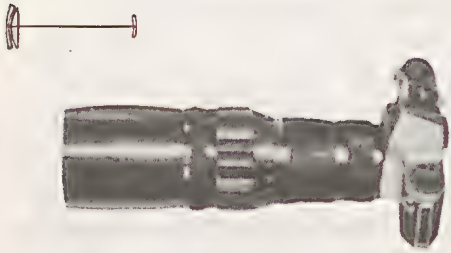

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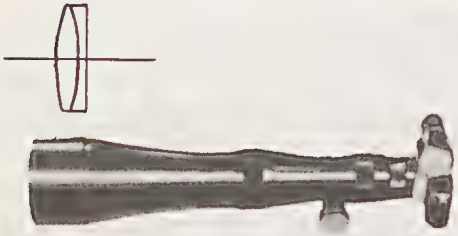

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The Library has steadily increased in value to the Club members as the number and variety of publications has grown. It is hoped ultimately to have a diverse and extensive reference resource so that members of the Club can consult the Library on any branch of natural history. Books and periodicals are always needed, and any gifts or donations for this purpose will be most welcome. If any member can recommend a good and reliable reference book on any subject, the Hon. Librarian will be pleased to hear of it.

Books and journals are available for loan to Club members, and it is requested that the appropriate card be signed and dated by any person borrowing so that we can trace the book concerned.

A summary of the books and journals at present in the library include the following:-

"The Emu", Journal of the Royal Australian Ornithological Union - about ninety separate parts between 1910 and 1954.

"Victorian Naturalist", Journal of the Field Naturalists Club of Victoria - about three hundred parts between 1927 and 1965.

"Wildlife" edited by Crosbie Morrison - about thirty parts of the now out-of-print magazine between 1939 and 1951.

"The Bird Observer" Journal of the Bird Observers Club - various parts between 1962 and 1965.

"Australian Wildlife" published by the Wildlife Preservation Society of Australia - eight parts between 1952 and 1963.

Other journals include a few issues in the following:-

"Wildlife in Australia", "Australian Bird Watcher", "The Geelong Naturalist", "Natural History", "Victoria's Resources", etc. etc.

Some of the books in the Library are as follows:-

The Observers Book of Birds Eggs.
By G. Evans.

The Observers Book of British Butterflies.
By W. J. Stohoe.

The Abbey Nature Books (II) British Birds.
By W. Percival Westell.

The White Desert.
By Noel Barber.

Travels on the Amazon.
By Wallace.

British Birds in their Haunts.
By Rev. C. A. Johns.

Snakes and Lizards of Australia.
By D. R. McPhee.

Do You Know About Birds.
Collins (London).

How and Why Wonder Book of Birds (New York)

Nature Digest

Census of Plants of Victoria.
F. N. C. V. 1923.

Nests and Eggs of Australian Birds.
By A. J. Campbell. Parts 1 & 2 1900.

JUNIOR PAGE
With I. F. Woodland

No articles from junior members have been received during the last month. As October is nesting time I hope to hear from many young Field Naturalists. See what you can do this time.

* * * * * *

MAKING A BIRD BATH

To make a simple bird bath a shallow hole can be dug. The hole can be lined with polythene or some other type of plastic sheeting. Crumbs and other household scraps can be scattered around the edge of the pool. One disadvantage of this bath is that the birds become the prey of cats.

A much better and safer type can be constructed by putting a post into the ground approx. 3 ft. 6 inches of it above ground level and attaching a tray to the top of the post. Birds that use this bath will have a clear view of any approaching enemy.

JUNIOR PAGE

HOME WITH A RUSH

During the September holidays while travelling between Hexam and Hamilton I witnessed a very interesting incident.

A black and white sheep dog was racing along the road with his ears flattened and his hair bristling and there just above him was a very aggressive crow. Every few seconds the sheep dog underwent a vicious aerial attack by this fury of black feathers.

In a very short time the dog was heading full pelt towards the homestead garage. The cawing crow did not give up the attack until the dog had reached safety.

In this area I noticed that there was a scarcety of trees and many birds such as the crow, magpie and mudlark had built their nests on top of telegraph poles.

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The G.F.N.C. meets on the first Tuesday in each month, at 8 p.m. at the Reformed Presbyterian Church Hall, Fenwick Street, Geelong. Visitors welcome.

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FRINGED SPIDER ORCHIDS

HON. EDITOR: TREVOR PESCOTT

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

MEMBERSHIP

Membership of the G.F.N.C. is open to any person interested in Natural History. The "Geelong Naturalist" is distributed free to all members, and the Club's reference and lending library is available.

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COVER PHOTOGRAPH

A group of Fringed Spider Orchids at Rocklands.

Photograph by Trevor Pescott.

1 4 JUN 1966
OF VICTORIA

GEELONG NATURALIST

EDITORIAL

January 1966.

The Campout described in this issue of "Geelong Naturalist" began as something of an experiment, for since we had not undertaken any such activity before, we knew nothing of the way it would be received. That it ended as a complete success is undoubted, for those who attended voted unanimously in favour of an annual Campout being incorporated in the Club's agenda.

To call it a "Campout" is rather unjust, for far from camping, we lived in very comfortable and congenial quarters totally removed from the general concept of camping. The organisers of the weekend are to be highly complimented for their handling of advance arrangements and for their organising of the days "in camp".

Now we are to have an annual Campout, each year in a different locality - this is a most acceptable decision, for the value of these weekend get-togethers cannot be too strongly stressed. It is more than a chance to see new places, new birds or plants - it is a time when new friendships are made, when old ones are consolidated. It is a time when each of us can share our knowledge and experiences with others who have a mutual interest in national history.

The need to live for at least a short while away from routine commitments - to "return to nature" if you like - is one of our basic needs in this heavily demanding way of life; these Campouts help, in a small way, to fill this need - for this reason, if no other, they are justified.

TREVOR PESCOTT,
Hon. Editor.

GEELONG FIELD NATURALISTS CLUB VISIT TO ROCKLANDS RESERVOIR

Date: 22nd, 23rd & 24th October, 1965.

It was early in 1965 that this Club planned a weekend trip to some place of interest to naturalists, a place where members could get together and enjoy the natural environment of an area in bird and plant life. The choice of Rocklands was made for several reasons;

A large chalet and a cottage was available to accommodate up to 50 persons.
Both were sewered, water was laid on, hot water service and electricity available.
It was well off the beaten track and offered quiet and solitude.
Birds abounded there and a large variety of interesting plant life was available to study.

This was our first attempt at such a venture and its outstanding success has assured the Committee that such trips will become an annual event and already plans are being explored for a 1966 trip, possibly to either Wilsons Promontory or Mt. Beauty.

Forty-seven members made the trip to Rocklands Reservoir and over thirty travelled right through on the Friday evening and the balance arrived during Saturday morning.

The itinerary was as follows:-

Saturday morning:	Free.
Saturday afternoon:	Short motor trip to wildflower area near Balmoral Golf Club.
Saturday evening:	Assembly for reading of bird-list, discussion on orchids and plant life of area, geological specimens, Natural History quiz, replay of visit to Melbourne Botanic Gardens led by Mr. Jim Willis, various slides of interest by various members. Supper.
Sunday morning:	Visit to excellent wildflower area across Glenelg River near spillway.
Sunday afternoon	Clean up and depart for Geelong.

CLUB MEMBERS AT ROCKLANDS

PHOTO BY OWEN ANDREWS

LAVENDER GREVILLEA

PHOTO BY TREVOR PESCOTT

GEELONG FIELD NATURALISTS CLUB VISIT TO ROCKLANDS RESERVOIR

The manner in which everybody co-operated with kitchen chores and other duties was greatly appreciated. My personal thanks to all and particularly to the Committee for making the trip such a success.

J. R. WHEELER
President.

Personnel who attended Rocklands:

Mr. W. Anderson, Mr. O. Andrews, Mr. J. Bell, Mrs. B. Campbell, Philip Campbell, Mr. G. Carr, Mr. & Mrs. A. Chapman, Mr. E.G. Errey, Mr. & Mrs. H. Fallaw, Mr. G. Farey, Brian Farey, Mr. & Mrs. A. Goding, Mr. & Mrs. J. Hunt, Keith Koppelaar, Mr. & Mrs. R. Lavery, Mr. & Mrs. G. Layland, Mr. G. McCarthy, Miss R. Marsh, Mr. D. Marsh, Mr. G. Mathison, Mr. & Mrs. H. Pescott, Mr. T. Pescott, Miss E. Poole, Miss F. Poole, Mr. N. Povey, Miss B. Povey, Mrs. J. Quirk, Mr. S. Rowe, Mrs. F.L. Singleton, Mr. & Mrs. L.W. Vincent, Don, Ken, Ted and Geoff Vincent, Miss J. Warne, Mr. & Mrs. J.R. Wheeler, Mr. I. Woodland, Mrs. F. Yoeman.

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WILDFLOWERS AT ROCKLANDS
By Geoff. W. Carr

Gazing at the distant blue Grampians and the rising sun behind them I surveyed the world and considered the prospects, they seemed distinctly bright.

I descended the steps of the cottage and walked onto the grassy slopes running from the chalet to the water's edge - Rocklands Reservoir. To the right the Glenelg River and the dam wall with a peninsular of bush beyond; ahead the water with the distant mountains and to the left more bush bordering the reservoir.

The Grassy Slopes.

These were not disappointing but boasted a wealth of herbs, and some small shrubs by the roadside. The dominant colour here was yellow. A number of lilies were present - the Chocolate Lily (Dichopogon strictus) with its branching stems and purple flowers, white and brown Milkmaids (Burchardia umbellata),

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yellow spikes of Bulbine Lilies (Bulbine bulbosa) and the lovely little Yellow Stars (Hypoxis glabella). Some not so early Early Nancies (Anguillaria dioica) were evident but the small spikes of white and brown flowers were beginning to fade. The Blue Squill (Chamaescilla corymbosa) was made conspicuous by its small but brilliant flowers.

In the early morning sun the Sundews were all a glisten. Though only one species was on the slopes it was very common. The species, the Pale Sundew (Drosera peltata) was bearing flowers, - small pink flowers in terminal heads.

The Dwarf Rice Flower (Pimelea humilis), with its white heads contrasting strongly with the red earth was present in numbers, and the less common Grass Trigger Plant (Stylidium graminifolium) was blooming. The plants were the typical white form with narrow leaves and shorter flower spikes found on the dryer auriferous and sandy soils. This form is the one found locally at Anglesea and the Brisbane Ranges.

Orchids could not be left out of the picture and were represented by one genus, the Sun Orchids. The delightful Rabbit Ears (Thelymitra antennifera),Scented and Slender Sun Orchids (T.aristata and T. pauciflora respectively) and the Salmon Sun Orchid (T.rubra) performed very well in the heat of Saturday and expanded to their blue, yellow and pink hues.

Several composites here were the Common Everlasting (Helichrysum apiculatum) with its showy orange-yellow heads and the Scaly Buttons (Leptorrhynchus squamatus). Both were very numerous and colourful.

Several Goodenias were flowering on the slopes, among them the Bent Goodenia (Goodenia geniculata), and the Cut Leaf Goodenia (G. pinnatifida) and another unidentified species with masses of yellow flowers and white undersides to the leaves.

The shrubs beside the road in front of the cottage and chalet were the Common Fringe Myrtle (Calytrix tetragona) and the Guinea-Flower (Hibbertia australis) but something will be said about these species later.

The Bushland Beyond the Dam.

The naturalists spent the most time in this area because it was close at hand and proved from the start to

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be very rich and interesting. Saturday morning was spent in this area, before and after breakfast and Sunday morning as well. It was originally planned to walk along the Glenelg River on Sunday morning, but once there, the area proved so interesting and the naturalists were discovering such a wealth of plants they stayed in the area.

Most numerous and most conspicuous in this area, especially on the gentle northern slopes, was the Fringe Myrtle (Calytrix tetragona). It presented a scene worth beholding - a sea of white flowers on bushes about three feet high. These flowers proved the main attraction to the bees in the area, and a constant and loud humming was maintained throughout the day. The flowers have red pollen and numerous red legged bees presented an unusual sight. As well as plants with white flowers some bore flowers of the palest pink.

In these extensive Fringe Myrtle patches several nests of the Yellow-tufted Honeyeaters were found and the bird sitting on a nest amid masses of white Fringe Myrtle made a very beautiful sight.

The trees in the area were mainly eucalypts of which the Yellow Gum (Eucalyptus leucoxylon) was flowering. Native Cherries or Cherry Ballart (Exocarpus cupressiformis) were not common in the area but several small specimens were seen, and the Silver Banksia (Banksia marginata) was present (bushes up to five feet high). Some bore the yellow flower spikes seen in greatest abundance in winter but appearing all year round.

Some of the commonest shrubs in the area were the Prickly Grevillea (Grevillea aquifolium) and the Silky Tea-tree (Leptospermum myrsinoides). The Grevillea has green and black flowers with red styles which hang in one sided clusters. The seeds must germinate very readily as considerable regeneration of seedlings was occurring. The Tea-tree was in full bloom, the diffuse shrubs covered in white blooms. Other tea-trees were growing along the Glenelg River but these will be discussed later.

Wattles of course were present though not many species were present. Both the Golden Wattle (Acacia pycnantha) and the Myrtle Wattle (A.myrtifolia) had flowered. The Myrtle Wattle is an early flowering shrub with pale yellow blooms. We need say nothing about the Golden Wattle. The small prostrate wattle, the Thin Leaf Wattle (A.aculeatissima) too, had finished flowering.

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A conspicuous group of plants in the bush were the heaths. The prostrate Cranberry Heath (Astroloma humifusum) and the Flame Heath (A.conostephioides) were equally common. The former forms a dense prickly mat and the small red tubular flowers are partly hidden in the foliage. This summer flowering plant, was at the time, bearing no flowers, though the Flame Heath still sported some flowers though most had fallen.

The seed of these two heaths is surrounded by a sweet fleshy exocarp and it is these fruits which form part of the diet of the emus which were noted as occurring in the area. The seeds of the Pine Heath are also eaten. This species (A.pinifolium) was not common in the area and I noted only one plant on the sandy soil on the southern slope. This plant is procumbent, the leaves prickly and the tubular flowers yellow with dark green tips to the petals. It is a very attractive plant.

The Golden Heath (Styphelia adscendens), another lovely species is a small plant with large golden flowers having reflexed petals. It had passed its flowering season. Another heath, the Daphne Heath (Brachyloma daphnoides) was by far the most common member of the Epacrid family. The bush of several feet has small leaves and white starlike flowers in the axils. Also the Common Beard Heath (Leucopogon virgatus) was present and the small white hairy flowers were conspicuous. Both the hairy and the hairless forms of the plants were found.

Some interesting and beautiful climbers were found. The Purple Apple Berry (Billardiera cymosa) which was ascending into the branches of the Eucalypts bore its yellowish tubular flowers. The flowers are followed by purple fruits. The delightful Love Creeper (Comesperma volubile) was not numerous but conspicuous with its stems of blue flowers contrasting with the white tea-tree flowers around which it was twining. Only several specimens were found.

Though we have already met them, but worth another mention were the Dwarf Rice Flower, Blue Squill, Early Nancies, Bulbine Lilies and Grass Trigger Plant. These were all found in the area but restricted except the Blue Squill and Early Nancies.

Of the insect eaters the Climbing Sundew (Drosera planchonii) was most common. This is the largest of the Sundews with numerous leaves on a twining stem often eighteen inches long. The flowers are large and

ABOVE - DOTTED SUN ORCHID

RIGHT- HOODED CALADENIA

BELOW - BRONZE CALADENIA

ORCHIDS FROM ROCKLANDS

PHOTOS BY TREVOR PESCOTT

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white, in a terminal head. All specimens had finished flowering. The Tall Sundew (D.auriculata) an erect stiff plant up to about one foot in height and distinguished from the Pale Sundew by the smooth hairless calxy which is hairy in the other species. The flowers are otherwise very similar. It was scattered but abundant.

The Rosy Storks Bill (Pelargonium rodneyanum) one of our brightest gems of the bush was to be seen in small numbers. The magnetta flowers are born on a slender erect stem. It flowers in mid summer. Pink-eye (Tetratheca ciliata) was abundant but not noticed much for the beautiful pink flowers had all disappeared.

A new plant for many was the glorious Lavender Grevillea (Grevillea lavandulacea). Though the plants were only a few inches tall they sported large bunches of exquisite pink flowers with white tipped styles. Though only three plants were found they created great interest.

One or another of the Grass Trees can usually be found and the species here was the Small Grass Tree (Xanthorrhoea minor). This has no obvious stem like the other Grass Trees but a short underground stem. The leaves are rigid long and slender and very numerous. The species was numerous and although no fresh flower spikes were seen a number of old spikes were seen. The flowers are white in a short and dense spike on a long stem. This species was observed to be persisting in paddocks where grazing is carried out. It appears to be much hardier than the Austral Grass Tree found locally and which could not tolerate such conditions.

Hibbertias (they are always there) were represented by several species- the Silky Guinea-flower (Hibbertia sericea), the Spreading Guinea-flower (H.procumbens) and H.australis. The Spreading Guinea-flower had finished blooming but the other species were flowering and lending a large amount of colour to the scene. The flowers are, of course, yellow and five petaled.

Black Anther Flax Lily (Dianella revoluta) growing in patches beneath Eucalypts was very attractive with its tall branching stems bearing star-like blue flowers with contrasting bright yellow anthers. The Twining Fringe Lily (Thysanotus patersonii) was in bloom. With the rather small fringed purple flowers on a much branched twining stem it presented an equally attractive sight as the Flax Lily. It was not common. The seed capsules on the Tiny Violet (Viola sieberiana)

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were already swelling and so the diminutive plant passed virtually unnoticed.

One of the more noticeable and beautiful plants, a real "gem" disappointed us too. Not one flower of the Common Correa (Correa reflexa) was found so we could not even tell what colour the flowers of this very variable plant were. It was scattered but not uncommon on the sandier parts. Beaked Hakea (Hakea rostrata) was not numerous at all but the large rounded bushes were quite obvious with their needle leaves. The plants had not yet flowered.

The Composites (Daisies) abounded; the Yam Cornflower (Microseris scapigera) was passed by most people because of its resemblance to the Dandelion. Likebits of gold it littered the landscape. The yellow Curling Everlasting (Helichrysum scorpioides) too was numerous and as well, a single specimen of the Showy Podolepis (Polodepis jaceoides) and several specimens of a Brachycome species were found. The Podolepis has large yellow heads and the Brachycome smaller white heads on slender stems.

The Austral Blue Bell (Wahlenbergia gracilis) was quite common. Its blue flowers last well into summer. Also seen here was the Bent Goodenia (G.geniculata) with its yellow flowers. Blue Pincushions (Brunonia australis) were represented and quite common, but not flowering. What a glorious sight when they are!

One of the less well known and inconspicuous plants, but deserving more attention is the Sweet Hound's Tongue (Cynoglossum suaveolens). The small perennial with its spike of small white flowers has a delightful scent and quite a strong scent. Only a few specimens represented this species here in the bush.

Another small plant, the Small St. John's Wort (Hypericum gramineum) was very abundant over most of the area. The plant often only a few inches tall has small yellow flowers. Less common, in fact very uncommon, was the Blushing Bindweed (Convolvulus erubescens), a very beautiful trailing plant bearing large pale pink flowers opening only in the sun. I noted one specimen in the bush and one on the rocky embankment of the dam wall. Beneath the Eucalypts the Stinking Penny-wort (Hydrocolyle laxiflora) was seen. The tiny plant has small umbells of greenish flowers.

One of the largest and best represented families were the Legumes - the Peas. These added a great deal of colour.

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First there was that delight the Running Postman (Kennedya prostrata). The brilliant red flowers spread over the bare earth among the Fringe Myrtles and often played neighbour to other peas, for example the common Flat Pea (Platylobium obtusangulum). The best part of the flowering season had passed but there were enough flowers to show what the plant looks like in full bloom - beautiful. The prickly much branched Leafless Bitter-pea (Davesia brevifolia) was in full bloom, even if the last species was not, and the bushes presented an interesting sight with the pink-copper flowers.

A most attractive pea, the Dwarf Bush-pea (Pultenaea humilis) is a spreading plant with greyish leaves and numerous orange and brown flowers. It was common on the sandy soil. Rough Parrot Pea (Dillwynia hispida) and Dillwynia glaberrima were conspicuous, the shrub bears masses of orange and yellow flowers in the case of the former species and in the latter mainly yellow flowers.

Of the grasses the most common species on the sandy soil of the area was Danthonia setacea, a slender species of about eight or ten inches, and the Wire Rapier-sedge (Lepidosperma semiteres) was a common component of the vegetation over the whole area. The plant grows to about one foot here.

Another Lily, the Nodding Lily (Laxmannia sessiliflora) a lowly plant of about three inches in height, was common and noticeable by its clusters of white papery flowers.

A shrub not already mentioned is the Prickly Geebung (Persoonia juniperina). It was at the time not very noticeable as it was fruiting. The foliage is needle like and quite dense. Several species of Stackhousia or Candlesticks were seen. They were the Creamy Stackhousia (Stackhousia monogyna) and the Slender Stackhousia (S.viminea). The former species was not at all common, only several plants being seen on the sandy area but the Slender Stackhousia was quite common over most of the area. Both species are very attractive with their upright spikes of numerous white or cream flowers. The small Curved Rice-flower (Pimelea curviflora) a greyish plant with cream flowers but not nearly as attractive as the Dwarf Rice-flower with which it was equally as common. The Thyme Spurge (Phyllanthus hirtellus) was another plant quite common over most of the area.

Orchids; these did (and always do) create the most interest. Their

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often bizarre form and colour, and their interesting pollination mechanisms make them great favourites among the wildflowers. There was a profusion of orchids in this part of the bush and many new and unfamiliar species were observed by the party.

The family which had the largest representation was the Caladenia family. The most common specie, the Fringed Spider Orchid (Caladenia dilatata) was quite a magnificent sight. One patch found must have contained one hundred blooms, all within a few square yards. This orchid is very familiar with its fringed tongue but its less well known brother was also present - the "Common" Spider Orchid (C.patersonii). This large white orchid with elongated sepals and petals was not to be found in colonies but scattered singly or in pairs, both on the sandy and red soil areas. Some specimens had two flowers on the stem which is usual for the species.

A very much rarer orchid was found in association with these two species mentioned above. It was a hybrid Caladenia, a cross between C.patersonii and C.dilatata. I have only seen one other orchid like this - at Anglesea- and specimens have been noted at Portland. Also a rather uncommon orchid is the Pygmy Pink Fingers (Caladenia carnea var. pygmaea). It was found in very limited numbers on the sandy soil of the southerly slopes of the bush in depressions. The normal Pink Fingers was found nearby again in small numbers. The species is Caladenia carnea.

An orchid new to me and most others was the Bronzy Caladenia (C.iridescens). This was not uncommon over a small area of the bush, but because of its insignificance it was possibly overlooked in other parts. It preferred the sandiest spots. The flowers (one to three on a slender stem) ranged from a greenish bronze to a rich vermillion. The plants created great interest as did the Hooded Caladenias (C.cucullata) which, with their more numerous white, green backed flowers, were much more conspicuous. One magnificent specimen bore twelve flowers.

The Sun Orchids were also well represented. The blue flowered Slender Sun Orchid (Thelymitra pauciflora) and the Scented Sun Orchid (T.aristata) were both common as well as the delightful Dotted Sun Orchid (T.ixioides) with darker blue flowers. The Salmon Sun Orchid was one of the most abundant species with its dusky pink flowers, which incidentally, as all the other species did, behaved beautifully in the hot Saturday sun.

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An "odd bod" among the Sun Orchids was one specimen found at the base of a Eucalypt. It was a large flowered yellow species which defied identification. It was either a rare hybrid possibly between C.rubra and C.luteo-cilium, or the Fringed Sun Orchid (T.luteo-cilium) in which case the habitat for the plant was very unusual.

The Common Onion Orchid (Microtis unifolia) too was seen in large numbers and the large robust specimens were much admired. One Diuris species was found in the area - Diuris longifolia, the Wallflower Orchid. Several specimens only were found.

Along the river and the edge of the reservoir which was not much explored, several interesting plants were found. Among these plants the showy Crimson Honey-myrtle (Melaleuca wilsonii) was observed to be most common, though very few flowers were seen. A Bottle-brush with scarlet flowers was also noted. This species was possibly the Scarlet Bottle Brush (Callistemon rugulosus). Tea-trees of several species occurred here also - the Woolly Tea-tree (Leptospermum lanigerum) and the plant Leptospermum obovatum.

On the Saturday afternoon an area of bush was visited several miles distant on the Balmoral Road. This area yielded some additional species.

The handsome tree - Black Wattle (Acacia mollissima) which was not yet flowering, and on the river flats which are subject to inundation the Red Gum (Eucalyptus camaldulensis), and a Fan Flower (Scaevola sp.) and the beautiful Yellow Marsh Flower (Villarsia exaltata). This plant was budded so we did not see its lovely hairy yellow flowers. A lowly plant the Creeping Wood-sorrel (Oxalis corniculata) was also seen, bearing its small yellow flowers.

A Tall Greenhood (Pterostylis longifolia) stem and many stems of the Waxlip Orchid (Glossodia major) were seen but these all had old blooms. However, one of the delights of the afternoon was a small group of Tiger Orchids (Diuris sulphurea) which were nestled against the stem of a Leptospermum. The clear yellow flowers amid the white Tea-tree bloom which was a riot of "colour" at this time were worth beholding. One new species of daisy was seen in this area - Senecio biserratus - a plant with purplish leaves and yellow flowers.

A plant occurring in both areas which I have neglected to mention

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and which formed a very common component of each area of bushland was the Horny Cone-bush (Isopogon ceratophyllus). The yellow flowers were blooming among the prickly foliage. A Wedge Pea (Gompholobium sp.) was also found in the area discussed previously. The species which was prostrate had most beautiful large reddish flowers.

The Arboretum and Shrubberies.

Around the dam, on each side of it, are large native plantations of shrubs and trees. The plants are placed very picturesquely and the lawns well maintained. Included among the plants were species of the following - mainly Western Australian species, - Net Bushes (Calothamnus sp.), Honey Myrtles (Melaleuca sp.) Bottle brushes (Callistemon sp.), Kunzea sp., Eucalyptus sp., Wattles (Acacia sp.), Hakea sp., Casuarina sp., the She-oaks, and a number of others. All these plants were grown at the Forestry Commission's Wail Nurseries.

There were some much admired plants among those represented. Those most noticeable were the Royal or King Hakea (Hakea victoriae) a West Australian species with a most striking form and varigated leaves of cream, red and orange. Some Yellow-winged Honeyeaters had utilised the stiff leaves as a frame for a nest. Pink Tips (Callistemon salignus), a tree with pale yellow bushes and bright pink young foliage created interest, partly for its beauty and from the number of Honeyeaters congregating around the tree feeding from the flowers. Several Eucalypts were much admired and also a magnificent specimen of Digger's Speedwell (Veronica perfoliata) which occurs locally. Under cultivation the plant assumes much greater dimensions and beauty. The plant was a yard high and at least four feet in diameter. It was a mass of sky-blue flowers.

I wish to acknowledge the kind help and courtesy of the National Herbarium, Melbourne; especially that of Mr. J. H. Willis.

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BIRDS OF ROCKLANDS
Compiled by Trevor Pescott

During the Campout at Rocklands Reservoir from October 22nd to 24th 1965, members of the Geelong Field Naturalist Club recorded eighty-eight species of birds, many of which were nesting. The habitats considered were as follows:-

1. Balmoral Township - population 250.
2. Glenelg River - two parts of the river were visited, one at Balmoral where some lush green marshes were formed, the other downstream from the Reservoir. The banks of the River, particularly at the second point, were well timbered with Red gums and Messmate, with an undergrowth of thick tea-tree and scattered Banksias.
3. Balmoral-Rocklands Road - 10 miles (a) Grazing land with a few trees (b) bushland (as habitat 5).
4. West of Reservoir - grassland between the Chalet and Reservoir largely planted with a wide variety of native shrubs.
5. East of Reservoir - undulating slopes of various messmate and box eucalypts, well timbered, with ground cover of calytrix, heath and tea-tree.
6. West of Chalet - moderately timbered with tall eucalypts, no ground cover.
7. Rocklands Reservoir - open waters, no water plants or rushes; some dead trees at margin. Capacity of Reservoir is 272,000 acre feet. The Spillway was not in operation as the water level was several feet below maximum.

For a comprehensive list of plants in these various habitats, see the article by Mr. Geoff Carr elsewhere in this issue.

The following is a list of bird species seen, with brief notes about each one. -

Emu (Dromaius novae-hollandiae)
Although no birds were seen, their droppings were found in much of the timbered area south of the Reservoir; in the soft mud at the edge of the water, footprints were also found.

Common Bronzewing (Phaps chalcoptera)
Several of these pigeons were seen in the bush, notably beside the Balmoral-Rocklands road.

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Dusky Moorhen (Gallinula tenebrosa)
The margins of the Glenelg River downstream from the spillway provided suitable habitat, and here several birds were seen.

Eastern Swamphen (Porphyrio melanotus)
As for Dusky Moorhen.

Australian Coot (Fulica atra)
As for Dusky Moorhen.

Black Cormorant (Phalacrocorax carbo)
One large flock of these Cormorants numbering at least 400 birds was seen, and there were many smaller groups as well, all feeding voraciously throughout the day.

Little Pied Cormorant (Phalacrocorax melanoleucos)
A few seen with the Black Cormorants.

Silver Gull (Larus novae-hollandiae)
Occasionally seen over the Reservoir.

Spur-winged Plover (Lobibyx novae-hollandiae)
Several pairs were seen around the margins of the Reservoir; one pair had three half-grown young with them.

Black-fronted Dotterel (Charadrius melanops)
The Glenelg River margins and the dry mud flats of the Reservoir were ideal for the several pairs of Dotterels seen. Although no nest was found, the birds behaved as though they had eggs or young.

Australian Snipe (Gallinago hardwicki)
One bird was flushed from the lush river bank growth at Balmoral.

White Ibis (Threskiornis molucca)
Several birds recorded from the swamp near Balmoral.

White-faced heron (Notophoyx novae-hollandiae)
A few birds only were recorded.

Nankeen Night-heron (Nyeticorax caledonicus)
Only one bird was seen, that being along the River.

Maned Goose (Wood duck) (Chenonetta jubata)
Six adult birds were seen on the Reservoir. Early in the morning of the 24th, a pair with seven young were found on the bank of the Reservoir north of the Chalet; they were heading to the water and had possibly just left their nest.

Black Swan (Cygnus atratus)
The water of the Reservoir was too deep for swans to feed, and there was little marginal growth, consequently only one Swan was seen, that flying over the Reservoir on the evening of the 23rd.

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Mountain Duck (Tadorna tadornoides)
Only a few birds were seen around the Reservoir.

Black Duck (Anas poecilorhyncha)
Several were seen along the River and near Balmoral.

Grey Teal (Anas gibberfrons)
A few were seen on the Reservoir and River.

Musk Duck (Biziura lobata)
Odd birds were recorded at the Reservoir.

Swamp Harrier (Circus approximans)
A pair flew up from the tussocks along the flats beside the Reservoir.

Wedge-tailed Eagle (Urooetus audax)
Two were observed flying over the timber to the east of the Reservoir, this being typical "Eagle country".

Whistling Kite (Eagle) (Haliastur sphenurus)
Occasionally birds were seen throughout the district.

Purple-crowned Lorikeet (Glossopsitta porphyrocephala)
Several small flocks of these Lorikeets were seen and heard flying overhead. An injured bird was found at the roadside; it was subsequently released.

Yellow-tailed Black Cockatoo (Calyptorhynchus funereus)
Occasionally small flocks were seen in the timber.

Gang-gang Cockatoo (Callocephalon fimbriatum)
These birds were seen in the bush along the River.

White Cockatoo (Kakatoe galerita)
A few were seen in the red gum timber and cleared land.

Long-billed Corella (Kakatoe tenuirostris)
Small parties were seen in several areas.

Galah (Kakatoe roseicapilla)
Occasionally, single birds or pairs were seen.

Crimson Rosella (Platycercus elegans)
A common species, with both adult and juveniles being seen throughout the area.

Eastern Rosella (Platycercus eximius)
A few were seen, mainly amongst the red gums.

Swift Parrot (Lathamus discolor)
Only one small party was seen, that being near the Chalet.

Owlet Nightjar (Aegotheles cristatus)
Two birds were seen, one at night; both were in the bush along the Rocklands-Balmoral Road.

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Kookaburra (Dacelo gigas)
Several birds were seen in most areas of timber; one pair were carrying food but the nest was not seen.

Rainbow-bird (Merops ornatus)
A few only were seen near the Reservoir.

Pallid Cuckoo (Cuculus pallidus)
Often calling in the more open timber; several seen.

Horsfield Bronze-cuckoo (Chalcites basalis)
One bird seen near Reservoir.

Golden Bronze-cuckoo (Chalcites lucidus)
One bird seen and heard in bush east of the Spillway.

Welcome Swallow (Hirundo neoxena)
Several pairs were seen around the buildings and Reservoir wall; two nests with eggs and young respectively were found at the Lodge and the Cottage.

Tree Martin (Hylochelidon nigricans)
Small parties were found around the Reservoir and along the River; probably nesting in dead timber at the waters edge.

Grey Fantail (Rhipidura fuliginosa)
Occasionally found in bushland and along the Glenelg River.

Willie Wagtail (Rhipidura leucophrys)
Found in all areas visited. One nest with three eggs was found just below the Spillway.

Restless Flycatcher (Seisura inquieter)
Several birds seen in the bush and along the Glenelg River.

Jacky Winter (Microeca leucophoea)
Found in the more open timber and forest margins.

Scarlet Robin (Petroica multicolor)
Several pairs were noted in the bushland areas.

Hooded Robin (Melanodryas culcullata)
Two pairs were found.

Rufous Whistler (Pachycephala rufiventris)
Several birds were observed in the scrub along the River and in other areas.

Grey Thrush (Colluricincla harmonica)
Common in all areas; they were very vocal.

Mudlark (Grallina cyanoleuca)
Occasionally seen around the Reservoir and along the Glenelg River.

Black-faced cuckoo-shrike (Coracina novae-hollandiae)
A few birds only were seen in the more open timber.

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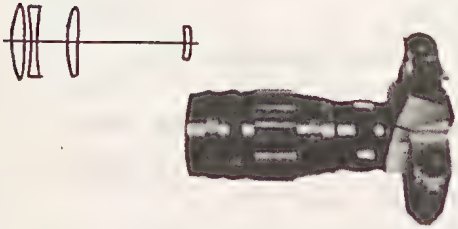

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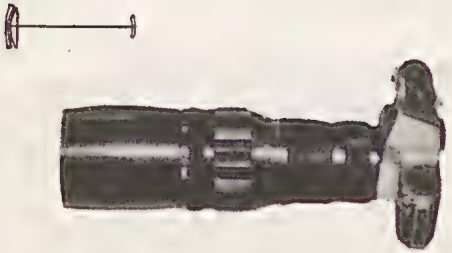

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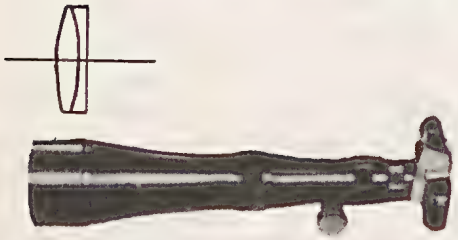

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BIRDS OF ROCKLANDS

Spotted Quail-thrush (Cinclosoma punctatum)
Only one bird was seen, this being flushed from scrub to the east of the Reservoir wall.

White-browed Babbler (Pomatostomus superciliosus)
One party of this species was seen on several occasions in the planted area below the Reservoir wall.

Striated Thornbill (Acanthiza lineata)
A few birds were seen around the garden of the Cottage and elsewhere.

Brown Thornbill (Acanthiza pusilla)
Plentiful in all bush areas.

Buff-tailed Thornbill (Acanthiza reguloides)
A few seen in the more open timbered land where one nest with eggs was found.

Yellow-tailed Thornbill (Acanthiza chrysorrhoa)
Fairly common generally throughout the area.

White-browed Scrubwren (Sericornis frontalis)
Several seen in the undergrowth; often heard "scalding" the intruders, but no nests or young were found.

Rufous Songlark (Cinclorhamphus mathewsi)
A few were recorded in the timber to the west of the Reservoir.

Superb Blue Wren (Malurus cyaneus)
Quite common; one nest with eggs was found in the bush east of the Reservoir. The bird which was flushed from the nest was a"brown" but it had a quite obvious blue tail indicating it to be a juvenile male.

White-browed Wood Swallow (Artamus superciliosus)
Several small parties seen and heard.

Dusky Wood Swallow (Artamus cyanopterus)
Several pairs noted; one nest was found built on a broken branch of a dead tree at the edge of the Reservoir.

Orange-winged Sittella (Neositta chrysoptera)
One pair was found with a nest and young in a tree immediately beside the Balmoral-Rocklands Road.

Brown Tree-creeper (Climacteris picumnus)
Several seen in the bushland.

White-throated Tree-creeper (Climacteris affinus)
Noted in the timber along the Glenelg River.

Mistletoe-bird (Dicaeum hirundinaceum)
Seen along the River; one fine male was seen in the neglected orchard behind the Cottage.

BIRDS OF ROCKLANDS

Spotted Pardalote (Pardalotus punctatus)
Several seen in the bushland areas generally.

Eastern Striated Pardalote (Pardalotus ornatus)
Common in all areas; nesting tunnels were found but it was not known what was in the nest.

White-naped Honeyeater (Melithreptus lunatus)
A few only were seen and heard in the bush.

Black-chinned Honeyeater (Melithreptus gularis)
Several were seen in the bush to the east of the Reservoir.

Brown-headed Honeyeater (Melithreptis brevirostris)
Several small parties seen in the various areas of timber.

Eastern Spinebill (Acanthorhynchus tenuirostris)
Odd birds seen in the bushland and feeding amongst the flowering shrubs at the Chalet.

Tawny-crowned Honeyeater (Gliciphila melanops)
Two birds seen immediately east of the Reservoir Wall; appeared to be nesting but no nest found.

Yellow-faced Honeyeater (Meliphaga chrysops)
Several noted along the Glenelg River below the Reservoir.

White-eared Honeyeater (Meliphaga leucotis)
A few seen in the timbered areas.

Yellow-tufted Honeyeater (Meliphaga melanops)
Quite common around the Reservoir. One nest with two eggs was found low in a Common Fringe-myrtle (Calytrix); both eggs hatched about mid-morning of 24th.

White-plumed Honeyeater (Meliphaga penicillata)
Only a few of this species was seen.

Yellow-winged Honeyeater (Meliornis novae hollandiae)
Common amongst the flowering shrubs below the Chalet where two nests were found; one with eggs being in a Melaleuca; the other was quite a remarkably built nest for the birds had used the wide, hard leaves of a King Hakea as the nest structure, and had simply lined the resulting cup. This nest held three young.

Little Wattlebird (Anthochaera chrysoptera)
A few birds were seen, notably along the River below the Spillway.

Red Wattlebird (Anthochaera carunculata)
A few birds seen in the more open timber.

Pipit (Groundlark) (Anthus novae-hollandiae)
Several seen in the grasslands in front of the Chalet and elsewhere.

BIRDS OF ROCKLANDS

Red-browed Finch (Aegintha temporalis)
A small flock was seen in the scrub below the Spillway.

Raven (Corvus coronoides)
Fairly common throughout.

Pied Currawong (Sterepera graculina)
One bird heard calling over the Reservoir.

Grey Currawong (Sterepera versicolor)
Several seen east of the Reservoir; a nest with one young was found.

White-backed Magpie (Gymnorhina hypoleuca)
Common in the open country where several families of flying young were noted.

Goldfinch (Cardeulis cardeulis)
Quite common around the Chalet.

House Sparrow (Passer domesticus)
Observed only around buildings.

Starling (Sturnus vulgaris)
Recorded from Balmoral only.

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GEOLOGY OF ROCKLANDS
By S. E. Rowe

The main formation of interest is the Rocklands Rhyolite. This rock, an acid (i.e. high silica) volcanic rock, of a chemical composition similar to granite, remains as evidence of volcanic activity during Upper Devonian times, some 350 million years ago. Further exposures of the same type of rock occur at Mt. Macedon, Warburton and in the east of the state.

The Rocklands Rhyolite shows evidence of its origin in well-developed flow banding, caused by slight variations in composition, and therefore in colour, in the smoothly flowing, viscous lava. These bands show curvature, and at times considerable contortion when the smooth flow was disturbed, for example, by the lava flowing over an obstacle. On first sight one could think the rocks to be folded sediments, so perfect is the banding in many outcrops.

Mt. Cavendish, some two miles south of the highway, near Cavendish, is a spectacular mass composed of the same rhyolite.

ROCK CARVINGS IN THE FLINDERS RANGES

By Eric Bound

It was the last week in May. All night the stars had blazed in a clear sky and a waning moon cast long shadows through the forest of native pine. With break-o-day just round the corner, one felt the crispness and sparkle of a light frost as the hush remained unbroken by any sound of man or nature. Then with the piccaninny dawn came the first stirring of nature as the early birds put out a few tentative calls and as though surprised and pleased at their own daring, soon found full voice to give a joyous welcome to another perfect day. The order never seemed to vary, first came a few muted notes from the spiny cheeked honeyeaters as they sounded revielle, and soon as they gained encouragement from each other, swelled to a full flood of song, the familiar bubbling and trilling notes, cascading through the forest from every point.

The kookaburras were next, as faint and clear from a distant spur of the range would come the soft echo of laughter. A brief interlude broken only by the querulous chirping of white naped honeyeaters, then a sudden boisterous outburst from near at hand as a family of kookaburras expressed their derision to all mankind.

Soon the other members in this wonderful performance of nature took their cue, the clear notes of the grey thrush, carolling of magpies, melodious tones of the butcher bird, and as though in contempt at all this beauty of sound, the harsh discord of ravens as they lumbered heavily above the tree tops.

The light strengthened, all was now bustle and activity, the white throated tree creepers culled their breakfast from every nook and cranny in the tree trunks and on the forest floor, the thornbills in scattered parties hopped and skipped their way from one morsel to the next.

And so we began another day of our visit to the fascinating Flinders Ranges from our Headquarters at Wilpena pound. All the week, by car or on foot, we had probed the beauty spots of this exciting area, the Quorn corellas, rock paintings at Yourambulla, deserted homesteads, Brachina and Bunyeroo gorges, on foot to St. Mary's peak with its magnificent vistas from the 3,900 ft. summit and return via the Pound, quiet picnic spots in the timbered valleys with their dry creek beds, and photogenic gum trees.

This was the day for our trip to the Chamber's gorge where we hoped to see some of the aboriginal rock carvings said to be in the area

ABORIGINAL ROCK CARVINGS
CHAMBERS GORGE

PHOTOS BY ERIC BOUND

ROCK CARVINGS IN THE FLINDERS RANGES

and after a hearty breakfast we were ready to begin. Everything had been checked the night before, food, water, axe, spade, tow rope and petrol, the going could be tough and we were not taking any unnecessary chances. The trip of approximately 90 miles each way could be divided into three sections, Wilpena to Blinman (40), Blinman to Wirealpa (22) and Wirealpa to Chambers Gorge (25). The first section gave splendid views of the rugged eastern wall of the Pound which thrust its proud bastions sharp and clear into the morning sunlight. The second section which led past Angorichina T.B. Hostel was a delightful run, winding through low ranges, over dry creek crossings, snaking past rounded and eroded outcrops and finally reaching Wirealpa homestead, the road passing between the homestead proper on one hand and the out-buildings and stockmen's quarters on the other. Here the nature of the terrain changes completely, with open saltbush and gibber plains stretching to the horizon blocked only by the somewhat forbidding outline of the Mt. Chambers range away to the east.

The track was essentially a dry weather one, we crossed areas of red clay still bearing the deep imprints of vehicles which had found the going soft. Patches of bull dust, although frequent, presented no problem to our progress and finally we entered the bed of the Chambers Creek which cuts through the range to eventually lose itself in the great depression of Lake Frome. This creek, although seemingly dry, supplies sufficient water underground to sustain a thriving colony of rock wallabies, the water coming to the surface at infrequent intervals in the form of clear pools sometimes surrounded by a dense fringe of rushes. The wallabies are of special interest because their coat instead of being fur is of coarse hair. An opportunity to study one of these marsupials at fairly close range through powerful field glasses revealed that the hair is approximately two inches long, very dense and quite coarse.

The rock carvings are situated in the first creek running in from the left after leaving the car at the end of the track. This creek is in itself a miniature gorge with sheer rock walls of dark brown stone rising in places to over one hundred feet and it is on these flat vertical walls that the carvings are found. They extend intermittently for a distance of approximately two hundred yards along the creek wall on the northern side and are placed at varying heights above the creek-bed, some being twelve to fourteen

ROCK CARVINGS IN THE FLINDERS RANGES

feet up with convenient ledges beneath which give access. The designs are fairly simple and appear to have been "pecked" out of the very hard rock, some have been outlined in color but whether this has been done by other hands I do not know. The actual outline is in the form of a shallow groove perhaps 3/16 of an inch in depth and 3/4 of an inch wide. They provide an interesting relic of a now vanished race and under ordinary conditions should remain for a long time to come.

A stroll down the Chamber Gorge for a mile or so was an interesting experience, numerous wallaby pads leading up the steep slopes and skirting, in places, the foot of sheer bluffs and outcrops, gave mute evidence of the animal population. Birdlife was quite plentiful and in the warm still air, the clear pools and lovely trees plus the riot of color in the surrounding cliffs gave the whole area an air of enchantment, so to anyone who may at sometime visit the Flinders Ranges I can only say, a trip to the Chambers Gorge would be well worth the effort and would give a most rewarding glimpse of a small segment of our great outback.

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REQUEST FOR JOURNALS ...

The Editor has had a request for issues of early journals; if anyone can help, they should contact Mr. R. M. Warneke,
C/- Fisheries & Wildlife Department,
605 Flinders Street Extension,
Melbourne.

"I have been endeavouring to obtain sets of journals dealing with natural history that have been published in Victoria, and two of the serious gaps in my library is the first nine volumes of the Victorian Naturalist and the entire early series of the Geelong Naturalist. Would it be possible for you to advertise my interest among Club members? I have no idea of the current value of the early issues of the Geelong Naturalist, but I am willing to pay £2 for each of the volumes of the Victorian Naturalist."

A VISIT TO THE TROBRIAND ISLANDS

By H. L. Bell

"Going to the Trobriands? Well, if you see anything interesting could you bring it back to the Museum?"

Little known to the casual traveller, until an enterprising firm instituted a series of profitable week-end charter flights, the Trobriand or Kiriwina Islands are a group of large coral cays 150 odd miles east of the Papuan North coast, in the Milne Bay Administrative District. The main appeal to the tourist is the comparatively unspoiled native people, who in spite of a rising standard of education, retain many of their customs, which are unique to their part of Papua.

Strongly Polynesian, with some Melanesian blood, the Trobriand people are a lightly built, good looking and fairly light-skinned race. The majority still wear original dress, which for the men is merely a pandanus leaf attached to a waist belt, and for the women an attractive multi-hued short grass skirt similar to that of ballet dancers. These people are noted for their artistry in carving and Trobriand woodwork is greatly prized. Unfortunately tourism is now debasing the art, much of the original work having been snapped up for cheap prices. However, in the outer islands life remains much as it has always been. That the islanders have a past history is well known, and the ruins of great stone monuments remain to this day. What is more astounding is that the nearest source of this stone is Woodlark Island, 100 miles further east. The ruins were quite intact until World War 11 when Allied forces, in an act of vandalism, decided to use them as artillery targets!

It was to this island that my wife Naomi and I went for one of the advertised weekend charter trips. The flight from Port Moresby was uneventful although beautiful views were obtained of the majestic Owen Stanleys and the great mountain of Goodenough Island which rises 8000 feet straight out of the sea, supporting in its isolation unique bird and animal life. At midday the Trobriands came into view with mile after mile of flat, richly vegetated islands. As we circled overhead, the opportunity was taken to study this vegetation. Originally the island must have been rain forest, but centuries of "slash and burn" agriculture have rendered most of it to very dense scrubby second growth. Although the soil is fairly porous, being of coral origin, the rainfall enables a lush vegetation to cover all uncleared land.

A VISIT TO THE TROBRIAND ISLANDS

On landing we were immediately taken on a tour of the island, mainly to visit the native villages, which themselves were sufficient to absorb our interest. Nevertheless, even from the back of a truck, one could get some glimpse of the bird-life. The most striking thing was the presence of Australian migrants. Sacred Kingfishers, Channel-billed Cuckoos and Bee-eaters were there in large numbers and the Shining Starling, a migrant to North Queensland, was present in dense flocks similar to those of its somewhat lousy European relative. Also prominent was the Varied Triller, a beautiful relative of the well known White-Winged Triller, and which can be found as far south as Taree in mid-New South Wales. Other Australian species present were the Electus Parrot, probably now reduced to the smaller pockets of original forest, and the Spangled Drongo.

Purely New Guinea forms were also present, one beautiful little gem being the Black Sunbird which builds a nest similar to a tiny purse, suspended from a jungle vine. One rare species was 'Comries' or the Curl-crested Manucode, a Bird of Paradise restricted to the Trobriands and Goodenough.

Our arrival back at the guest house was greeted by some two hundred natives, all eager to sell their carvings, most of which were beautifully made. One old man, with the dash of a real estate salesman, tried to sell us a carved goanna and it was at this juncture that we remembered the request of Roy Mackay, the curator of the newly - established Papua-New Guinea Museum. Unfortunately the man with the wooden goanna spoke no Pidgin, and I no Motu, but salvation came in the guise of a nine year old nephew of one of my own soldiers. With his interpretation I made it known that I was eager to pay for live goannas but not for carved ones. Thinking no more of the matter we retired for the evening.

Dawn, and breakfast, produced the nephew and a cohort, clutching a beautiful two foot goanna, which had obviously just shed its skin. Dark green with yellow spots, it turned out to be the Indian Monitor, Varanus indicus (a species found from India to the Solomons and North Australia). After a brief struggle in which the goanna scattered the assembled tourists, the prize was put into an old carton and enlivened breakfast by spirited attempts to scratch his way out.

At Seven O'clock we left once more on a tour, not before acquiring a beautiful butterfly, attached to a three foot string and led by the tiniest small boy who demanded a packet of "P.K.'s" as the price. Just before we left we were halted by a fierce looking gentleman, clad in pandanus leaf and clutching a ten foot spear who politely enquired

SPHENOMORPHUS JOBIENSE
(Skink no common-name)

EMOIA CYANOGASTER
(Striped Skink)

EURYCANTHA HORRIDA
(Spiny Phasmid)

PHOTO BY ROY MACKAY

A VISIT TO THE TROBRIAND ISLANDS

in faultless English - "Excuse me, Sir, but I understand that you are collecting small creatures."

By midday, on our return, it was obvious that the enquirer had produced startling results. The first trophy of the chase was a stick insect fully eleven inches long which was deposited in a plastic bag. Next came Euryeantha horrida, an armour-plated monster with great clicking barbed hind-legs which also was incarcerated in a plastic bag. Our elderly salesman of carved goannas then appeared with a Crested Tree Dragon lizard, for which he asked four shillings. As it turned out this Goniocephalus was the real prize of the tour. This genus, always rare, is found in New Guinea rain forests with two outlying species, one in North Queensland and another little known, in the Lamington National Park.

The plastic bag supply had now given out so we were baffled by the next arrival, Nephila, a formidable spider of some six inches span which seemed reluctant to stay put. Hastily an envelope was constructed out of a copy of the "South Pacific Post" and some thorns taken off a nearby tree. Consigning it to Naomi's handbag, we hoped for the best. When at last things looked like easing off, in staggered nephew and his cronies once more, carrying the original father of all Indian Monitors, very long, very beautiful, and very angry at being unceremoniously disturbed. As at this stage the management were trying to shepherd us onto a truck for the airport, the die was cast. A quick search revealed a copra bag into which the prize willingly retired, thus winning a comfortable and wide berth for us on the crowded truck. Just as the vehicle started up a shy little girl raced up with two small skink lizards. As I was wrestling still with Varanus indicus, Naomi paid off the small collector, poked the skinks into a beer bottle and stuffing her finger into the top, boarded the truck for the plane and home.

After taking on board the tourists, numerous carvings, and a collection of rustling and scratching packages in the Bell baggage, the DC3 took off for Port Moresby. On reaching the Owen Stanleys the Captain was forced to go up to 15000 ft. and without oxygen I found it most uncomfortable. It seems that Varanus indicus agreed with me and signified his disapproval by forcing his head out of the copra bag. The ensuing Homeric struggle continued until the lower altitude of Port Moresby was reached, when my opponent decided that a sleep was preferable to a fight. So ended a memorable weekend which both of us will never forget.

Some of our specimens still crawl round the Mackay household. All are the first of their kind to be acquired by the newly-established zoological collection of the Museum. The two insignificant skinks (which arrived home finally with their temporary prison blocked up

with a lace handkerchief) turned out to be two distinct species. It seems that they will have to be sent away for identification, if indeed they can be identified. Such is collectors' luck!

H. L. BELL,
Port Moresby.

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JUNIOR PAGE

REPORT ON PROJECT WORK ...

Two very fine projects were made by Geoff Vincent and Michael Schwarz. Geoff made a large chart entitled "Common Birds of Geelong and District". Photographs were neatly arranged and sketches were of a very high standard. Michael worked very hard indeed to make a very fine collection of insects, sea creatures and geology specimens. All specimens were neatly arranged in shirt boxes; the clear cellophane being used as a covering instead of glass. Both members are to be congratulated on the excellent work they have done.

JUNIOR FIELD NATURALISTS' CLUB PROJECT 1966 ...

Topic:- A project which shows some aspect of Natural History in Geelong and District.

The project can be a collection of insects, shells, fossils; charts on bird life, native plants, wild flowers, insects or a report or essay on any aspect of Natural History.

At low tide many interesting specimens can be collected, especially during the summer months.

NEWS REPORT ...

Rainbow birds are building their nests in the Anglesea area. Quite a few holes are being worked near the Anglesea golf course, especially where a road has been cut to open up new building blocks.

WANTED URGENTLY ...

Come on Junior Members see what you can do. We are badly in need of fresh articles on any natural history topic for this page. Even if it is only a small paragraph it will be gratefully accepted. Please forward articles direct to I.F. WOODLAND, 33 Grant Street, Newtown, Geelong.

Project Closing Date : May 31st.

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The G.F.N.C. meets on the first Tuesday in each month, at 8 p.m. at the Reformed Presbyterian Church Hall, Fenwick Street, Geelong. Visitors welcome.

All papers submitted for publication in this journal should be sent to the Hon. Editor,

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